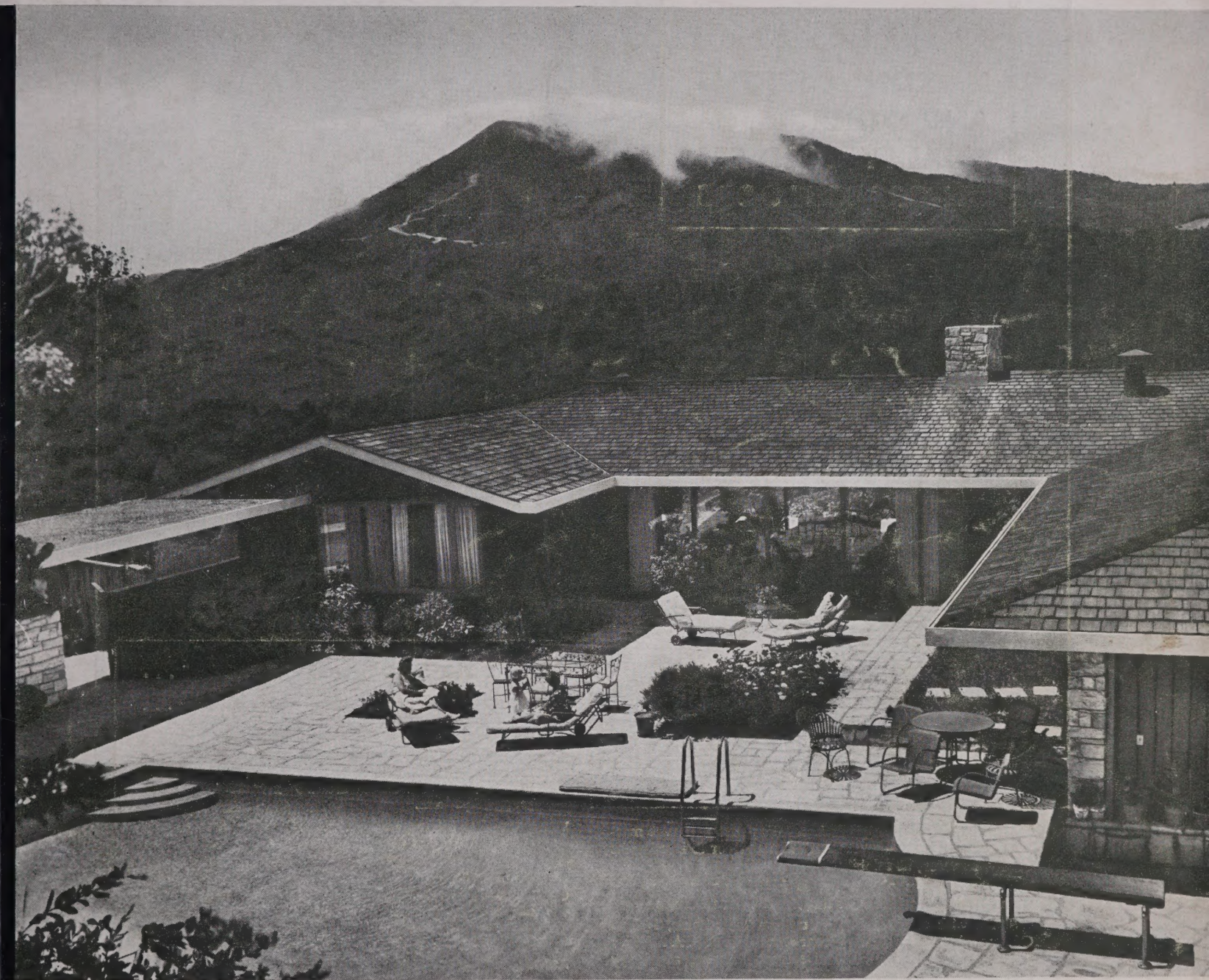


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# House & Home

AUGUST 1956 SIX DOLLARS A YEAR—ONE DOLLAR A COPY



Patios are big favorites of architects and builders everywhere — page 124

■ Editorial: Let's do something about money! — page 144

Landscaping can help sell your house — page 168

See what's happening in the East's newest housing boom — page 158

How the right house can make a 50' lot really spacious — page 152



# Show off the room... and Sell the house

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Nairon Custom plastic tile is  $\frac{1}{8}$ " homogenous plastic which carries its colors clear through the full thickness.

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FOR THE LOOK THAT'S YEARS AHEAD

*Gold Seal*<sup>®</sup>  
FLOORS AND WALLS



# ROUNDUP

## Home building continues downward trend

All the homebuilding indices are still falling.

Housing starts for the first six months are 17.7% below 1955. Seasonally adjusted, the rate for June was only 1,070,000—lowest of the year. Sales are reported poor in many markets (40% off in Kansas City).

FHA applications were off 24% from May in June. VA appraisal requests sagged 20% (see p. 49). Prefabbers report shipments down 22.5% for the first five months of the year (see p. 103). Even building materials prices, long the symptom of selective inflation in building, have now dropped slightly. The mortgage market continues tight (see p. 62).

But overall the nation's economy is booming so much that one mortgage banker observes: "Sure, the building contractor is hurting—a little—but who cares?"

## How GM's Roger Kyes envisages the house of tomorrow

Roger M. Kyes, vice president of General Motors in charge of Frigidaire, grows enthusiastic when he talks of the future for built-in home appliances. "As of now," says he, "just about 2¼ million homes out of 50 million have some form of cooling or are air-conditioned—less than five out of 100. By 1965 I expect 60 out of every 100 homes to be so equipped." Kyes speculates on the possibility of a central refrigeration system, like central heating, that will have, for instance, a fur storage closet, a refrigerated cabinet for cosmetics and perishable medicines.

He thinks future refrigerators may do away with the mechanical compressor and refrigerant and run instead by electronics with no moving parts. He foresees completely automatic laundry equipment that will convey, sort, clean, iron and fold, a washing system that will wash, rinse and dry the kitchen floor automatically in minutes ("That is not such a wild dream as you might think; I've seen it done"), a fully automatic house with its own source of power, atomic or solar, its own water and disposal system independent of well or main.

## Housing bill strategy may boomerang for FHA

Look for Congress to clamp a tighter rein on FHA insuring authority next year. The key reason conservative elements in the House were able to bottle up the 1956 housing bill in committee—at least up to when this was written—was that FHA turned out to have some \$2 billion of unused insuring authority. That is enough to get through until next January when the new Congress can vote it more.

This unique situation frustrated the customary strategy of pro-public housing legislators. Normally, they hold continued life for FHA a hostage for a public housing program, simply by tying the two together in an omnibus housing bill. No matter which way the mid-July impasse ends, few congressmen will be happy about FHA having talked them out of more than a year's authority to do business. Capital Hill insiders expect next year's Congress to pare FHA insurance authorizations to a minimum.

## Washington inside: new look in FHA... will FNMA cut prices?

Quietly, FHA is easing up on more and more tough regulations. Latest items: co-op sponsors are now allowed to pay mortgage discounts (see p. 63); a new charter has ended much red tape for rental housing (see p. 55); trade-in regulations have been eased (July, p. 128); and field offices have been told to be "less specific" about applying all MPRs to old houses (July, News). At the same time, FHA is raising quality standards. Latest instance: new, stiffer MPRs governing lot improvements (p. 52). FHAides would like to work out "reasonable compromises" to clear up cases still pending from investigations of 608 windfalls. But Dept. of Justice is opposed, insists FHA get tough. Upshot: FHA may reluctantly file more law suits.

Insiders think FNMA may boost its mortgage discounts—after Congress quits... Big item holding up White House nomination of John R. B. Byers, Newark CPA, as Home Loan Bank chairman, is opposition by Sen. Knowland (R, Calif.). Knowland has his own candidate for the job... Electrical contractors say they are withdrawing financial support from Operation Home Improvement.

## THIS MONTH'S NEWS

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# sweet talk sells

... sells the woman, who really decides which home to buy!

Here's how In-Sink-Erator—and only In-Sink-Erator—

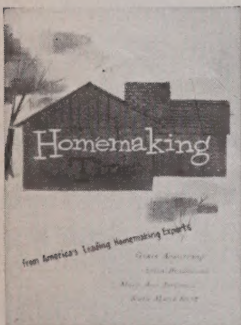
helps you sell, with alluring ads that tell her what she wants to hear!

Sell the woman and you sell the home. Of all garbage disposer makers, only In-Sink-Erator talks to women in language they like and understand ... in costly, big-space ads in magazines women read most, trust most: *Vogue*, *Glamour*, *McCall's*,

*Ladies' Home Journal*, and many more. Hundreds of women, sold on In-Sink-Erator, will look with new interest at the kitchens of your homes—IF they're equipped with IN-SINK-ERATOR ... boldly pointed out at your point of sale!

## Convincing selling aids help speed your sale!

Colorful model home promotion aids—billboards, job signs, sink displays, booklets prepared by home-making experts of leading women's magazines promote your home development ... help you develop and close the sale. And it's all yours, when you install this low-cost sales feature in your model homes!



HOMEMAKING  
BOOKLET



SINK DISPLAY



BILLBOARD

In-Sink-Erator Manufacturing Co.  
1207 Fourteenth Street  
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Gentlemen: Please send information about In-Sink-Erator Garbage Disposer, and about your new, different, woman-minded plan to help us sell more homes.

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

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about In-Sink-Erator and its power to help sell homes.

Call your plumber, or mail this coupon today!

In-Sink-Erator is your wisest choice for a low-cost selling feature because:

- It's so easy to install!
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## **darling, you're much too nice to be a garbage collector**

...and you're much too modern to fuss with food waste the old-fashioned way. In a truly up-to-date kitchen, there's no more garbage mess... because there's no more garbage! Thanks to In-Sink-Erator, the advance-design garbage disposer, drippy, smelly garbage is gone from your life for good. You simply turn on the cold water in your sink, flip a switch, and whisk food waste down the drain. Even hardest solids are shredded, quietly... washed away, quickly—all for pennies a day! Hurry and ask your plumber about In-Sink-Erator, available in the decorator colors shown below. Look for this modern home-planning feature in model homes in your community. In-Sink-Erator Manufacturing Company, Racine, Wisconsin.

## **In-Sink-Erator®**

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## HOUSING MARKET:

# How the \$33 billion federal highway program will affect home building

The \$33 billion federal road building program, which will bring new and bigger roads to every major US metropolitan area, confronts builders with both opportunities and problems. It means:

1. Vast new suburban areas, once considered too remote, brought minutes closer to the urban core thus making them coveted residential sites.
2. As the new suburbs are developed, multiplying problems of planning and community facilities.
3. Continuing inflation of land prices as speculators (and smart farmers) price up any land which benefits from an expressway passing near.
4. More decentralization of industry to the rural fringes of the suburbs, creating new home markets among their employees.
5. An opportunity for builders to establish new commercial centers in the "far-out" suburbs.
6. Material shortages, particularly cement, may pinch until producers catch up on their expansion.

Federal road aid provides that the US will pay for 90% of roads in the interstate system and increase money available for its 50% share of the cost of other federal highways. Most new highways will have limited access, with no traffic lights. The 13-year program will be financed by higher gasoline and tire taxes.

**Anticipated results of this new master network of highways are not based on speculation. Enough cities have already built expressways to establish a pattern. For example:**

- ▶ Completion of the TappanZee bridge across the Hudson River above New York is transforming Rockland County into a commuting area.
- ▶ In 1948 when work began on the Oakland-San Jose (Calif.) Freeway, 520 acres alongside it had been selling slowly for three years at \$500 an acre. The price soon went up to \$2,000 and by the time that part of the freeway was finished in 1953, had soared to \$7,100 an acre. In that time 3,000 new homes were built on the land.
- ▶ While Atlanta was still building its North Expressway, Builders Fred G. Fett, Jr. and Walter Tally, started building near the proposed right-of-way. Even the expectation of the expressway resulted in booming sales.
- ▶ The Hollywood Freeway, opened by sections from 1950 to 1953, is credited by many an expert as the trigger of the housing boom in the San Fernando Valley. On the other side of Los Angeles, the Santa Ana Freeway was largely bracketed by subdivisions built in anticipation of its construction.

**City planners hope the highway bonanza can be tempered with sane land use so it will not worsen problems of urban sprawl. Some are pessimistic.**

The Highway Research Council, division of the National Academy of Sciences, has started to study how urban growth may be affected by the big highway boom. Says one project official: "We hope to plan urban development in undeveloped areas suited to the automobile age. We hope the result will be a plan for a contemporary city."

Dennis O'Harrow, executive director of the American Society of Planning Officials, cautions: "One result will be more metropolitan problems. It will encourage shopping centers—many of which will go broke—but will still bring complaints from the central business district and probably with some justification. It will be hard on them. I'm afraid the overall effect of the highway program may be to encourage much development in advance of our ability to take care of it."

Warns Realtor John O. Chiles of Atlanta: "Indiscriminate development without planning may mean that houses built as a result of new expressways will have to be torn down some day to make room for more expressways."

## MARKET BRIEFS

### New forecast: 1,150,000 starts

Private housing starts will fall 12.2% to 1,150,000 this year, according to the latest government forecast.

But because of rising costs and larger homes, dollar volume of new private housing will be off only 8% from 1955 levels, say the Commerce and Labor Depts. Last year, new residential nonfarm construction totaled \$14.9 billion. This year, they expect it to reach \$13.7 billion.

Last November, the two departments predicted 1.2 million private starts this year, compared to 1,310,000 in 1955. Their new prophesy is 4% lower. (Their new forecast for dollar volume is 3.8% lower.) Reason: government experts had predicted a downturn in housing, but in common with many others, they underestimated it.

The departments blame housing's drop on mortgage money. "Funds for longterm, low-down-payment mortgages at low interest rates have remained relatively scarce longer than was foreseen," they say.

The decline in housing will be more than offset by increasing building of utilities, highways, sewage plants and water supply facilities—which help builders indirectly.

### New models needed

**"The best hope for advance in the rate of house building is development of new models that will stimulate the interest of home buyers who are able and willing to buy better housing but who are not compelled to buy or to trade up."**

That advice comes from Economist Arthur M. Weimer and Executive Vice President Norman Strunk of the US Savings & Loan League. Easier credit, they warned in the league's "Quarterly Letter," is not the whole answer to falling housing starts (though it would help). Say Strunk and Weimer: "Buyer interest remains strong but purchasers are becoming increasingly selective. Consequently, properties that do not offer attractive design and styling . . . with large, well planned lots, tend to sell slowly."

### Vacancies hover at 2.7%

Residential vacancies across the nation remained at 2.7% between the last quarter of 1955 and the first quarter of this year, says the Census Bureau.

This compares with 2.3% vacancies earlier in 1955 and 1.8% in 1950.

Vacancies in owner-occupied homes for sale—reported for the first time—were less than 1% in the first three months of 1956. Vacancies in rental property reached 5.6% of all rental property—about twice the 1950 rate.

In FHA-insured rental projects, the trend is the other way, suggesting that congressional crippling of FHA rental programs is beginning to be felt in the market. FHA rental vacancies fell to 3.2% at the end



of 1956's first quarter. This reverses a three-year trend. Vacancies were 2.8% in 1953, 3.5% in 1954 and 4.4% last year. Current vacancies—based on an actual count of FHA's 520,000 rental units—vary widely:

<i>Region</i>	<i>Vacancy rate</i>	<i>Region</i>	<i>Vacancy rate</i>
New England .	1.1%	Mid-Eastern ..	2.6%
Far West .....	3.0%	Southwest ....	8.3%

NARE's semi-annual market survey turned up much the same story. In 92% of 220 areas studied, vacancies in single-family detached rental homes ran 2% or less. Only 6% of the cities showed vacancies between 3% and 5%, only 2% were experiencing vacancies above 5%.

## The local look: Los Angeles

Take a good look at what is happening to new housing in Los Angeles County if you want to see why home builders are not crying more about falling starts.

From January through May, building permits for dwelling units were off 14% from the same period in 1955 (33,943 vs. 39,718). But dollar volume of permit valuations fell only a negligible 0.04% (from \$545,843,000 to \$545,610,000). LA County is the heart of the busiest home building market in the nation.

## Family formations bounce back

A new government report has cast more doubt on whether family formations have as much to do with demand for new homes as is popularly supposed.

The Census Bureau counted 43,436,000 nonfarm households in the US as of April. This was an increase of 1,193,000 over the April 1955 figure—the largest year's increase since 1951 and a whopping 41% bigger increase than Census reported between 1954 and 1955 when households increased only 835,000.

The year-to-year figures swing widely because of sampling errors. Yet prophets of overbuilding have used the low increase in household formations last year to bolster their warnings of danger ahead. If the household formation figures denoted a market for housing, sales and starts should be rising instead of falling this season.

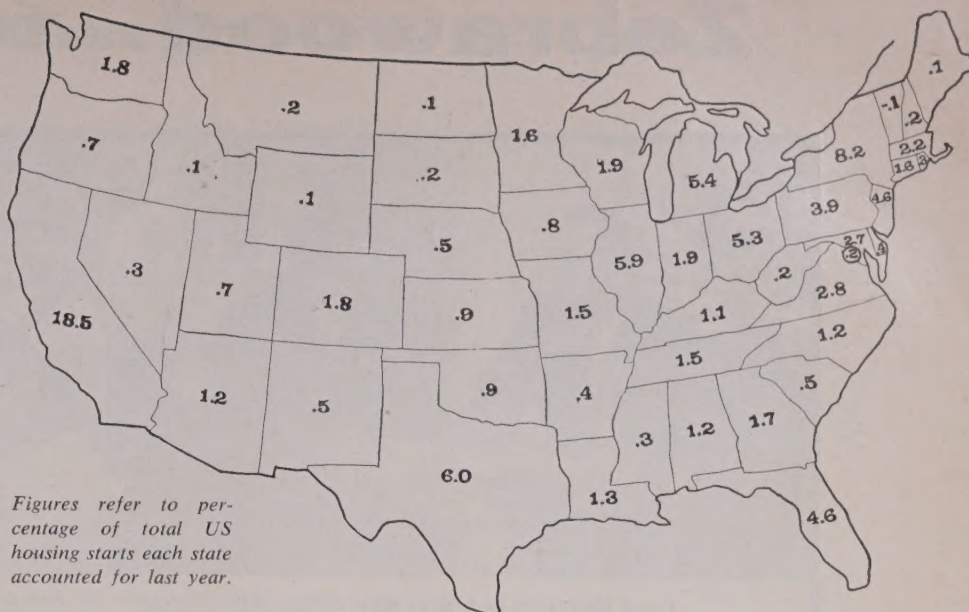
The average annual increase in households from 1953-56 inclusive is close to 978,000. Economists say such four-year averages are more trustworthy than annual data.

## Rents climb 1.2% in year

Residential rents rose 1.2% during 1955 after rising more than 20% in the preceding five years, BLS figures show. Moreover, in some cities where rents were decontrolled early and postwar residential building has been heavy, rents decreased last year.

Comparison: in Houston, where rents were decontrolled in Oct., 1949, BLS' rent index dropped 0.9% last year; in Los Angeles, decontrolled in Dec., 1950, rents rose only 0.1%. At the same time, in both New York and Philadelphia—still under rent control—rents rose 0.9%.

NEWS continued on p. 49



Figures refer to percentage of total US housing starts each state accounted for last year.

## How much of US home building does your state do?

Fifteen states account for 75% of US home building and six account for 49%.

This concentration shows up in a new compilation of starts-by-states made by the Depts. of Labor and Commerce.

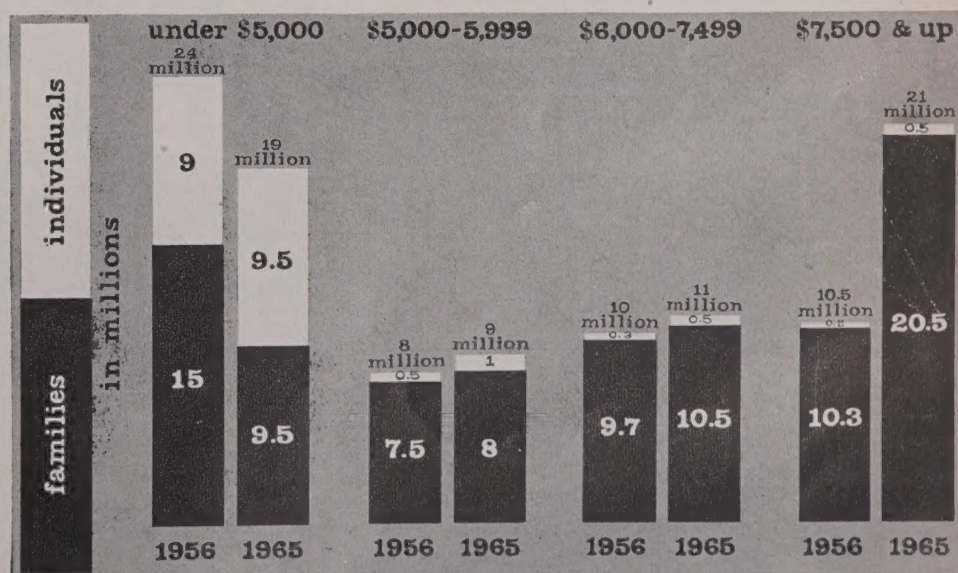
The situation in 1955 (see table) varied from 1954 by less than 1%. In '54 the same six states (California, New York, Texas, Illinois, Michigan and Ohio) accounted for 49.1% of housing; 15 states produced 75.2%, with only one change in the list (Georgia ranked 15th in '54 and Wisconsin was 16th).

Booming California topped the list both years by the same wide margin. Nearly a fifth of the nation's new nonfarm dwelling units have gone up in California in both '54 and '55. At the other end of the scale, 23 states last year accounted for less than 1% each of total housing. Five—Idaho, North Dakota, Maine, Wyoming and Vermont—accounted for 0.1% or less. Vermont brings up the rear.

## HOME BUILDING BY STATES (1955)

		NONFARM	% OF U S
RANK	STATE	STARTS	TOTAL
1	California .....	212,493	18.5
2	New York ....	93,882	8.2
3	Texas .....	69,214	6.0
4	Illinois .....	67,735	5.9
5	Michigan .....	61,927	5.4
6	Ohio .....	60,588	5.3
<b>Subtotal</b>		<b>565,857</b>	<b>49.3</b>
7	Florida .....	53,069	4.6
8	New Jersey ..	53,052	4.6
9	Pennsylvania ..	44,558	3.9
10	Virginia .....	32,309	2.8
11	Maryland .....	30,404	2.7
12	Massachusetts ..	25,203	2.2
13	Wisconsin .....	21,283	1.9
14	Indiana .....	21,185	1.9
15	Washington ...	21,042	1.8
<b>Subtotal</b>		<b>867,962</b>	<b>75.7</b>
16-49 Others 279,472 (& D.C.)			24.3
<b>TOTAL</b>		<b>1,147,434</b>	<b>100.0</b>

Source: Commerce and Labor Depts.



## How US incomes are expected to rise by 1965

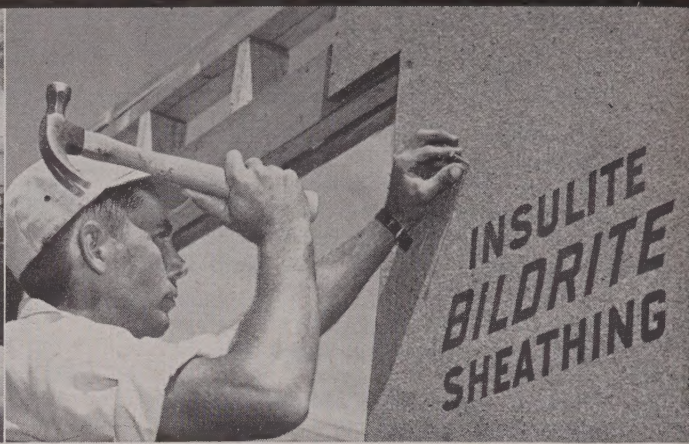
These new figures on how dramatically US incomes are moving up show that between now and 1965 the number of families earning under \$5,000 will fall from 15½ to 9½ million. The number between \$5,000 and \$7,500 will stand still. But the number earning over \$7,500 will jump from 10.3 million to 20.5 million! That means twice as many families over \$7,500 as the nation will have left under \$5,000. The data was compiled by Fred Lindsay of the US Chamber of Commerce for *Nation's Business*.



# Zebrawood...teakwood



**Lloyd Moe (left) and Harry Moe**, owners of Brentwood Building Corp. in Madison, Wis., now build 15 to 25 homes a year at \$18,500 and up. Their Brentwood Village, platted for 225 homes plus park and professional service center, has about 45 homes, all sheathed with Bildrite.



**For \$10,000 homes or \$100,000 homes**, Bildrite offers greater bracing strength, better insulation, ease of application, and really important cost savings. Cuts quick and clean with hand or power saw . . . goes on fast . . . reduces your waste to absolute minimum.

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# Military housing program goes into high gear

Capehart Act military housing, moving slowly since the first project was bid in March, is going into high gear.

In August and September, 11,376 units in 21 projects are due to be bid. Estimated cost: \$153,526,000.

Another five projects, covering 4,718 units with an estimated cost of \$63,693,000 were bid in late July.

## Builders get in the act

Home builders, showing more interest in building military family quarters than ever before, fared well in bidding on the first seven projects, though outnumbered two-to-one by general contractors. The record:

► Ralph E. Bush, Norfolk, Va. home builder, was low bidder on 270 units for Redstone Arsenal at Huntsville, Ala. He bid \$3,338,000, nearly \$260,000 below his nearest competitor, Contractor J. W. Bateson Inc. of Dallas. Builders William and Jack Demetree of Jacksonville bid \$3,644,700.

► Centex Construction Co. of Dallas, 1955's biggest builder, was low bidder on 500 units at Eglin Field, Fla. A. Kaplan & Sons of Englewood, N. J. also home builders, placed second.

► Other builders are joining syndicates with contractors to get jobs. Alcon Development Corp., a combine of three Los Angeles contractors and two home builders, was low bidder at \$6,117,000 on 525 units to be built at Fort Lee, Va. and the Richmond Quartermaster Depot.

Members of the syndicate are contractors Gunther and Shirley Co., H. C. Smith Co. and Myers Bros. with builder B. C. Deane and a fifth "silent partner," also a builder. Although the first three firms are primarily general contractors, they also have built homes in Los Angeles.

► Alcon was second low bidder on 600 units for Ft. Eustis, Va., a job won by J. W. Bateson Inc. for \$6,820,000. Alcon and Bush were both within \$30,000 of the low bid.

► Floyd A. Harrison, builder of Oklahoma City, was low bidder on 211 units at Fort Carson, Colo. but all bids were rejected as too far over the FHA appraisal.

► A combination of builder Dan Ponder and contractor C. H. Levell of El Paso won the first Capehart job, 944 units at Abilene (Tex.) AFB.

► Only job on which no home builder even bid was for 284 units at Ft. Bragg, N.C. Winning bidder: Contractor H. L. Coble of Greenboro, N.C.

## Builder syndicates forming

Reports from other areas where Capehart projects are to be built indicate home builders will be bidding in force. In Little Rock and El Paso, builders have formed syndicates to bid jobs too big for them to finance alone.

There will be plenty of jobs to bid. Latest report from FHA's armed forces housing office shows 151 projects committed totalling 71,320 units. The Capehart law gives the Pentagon until Sept. 30 to get commitments for up to 100,000 units.

The complete list of projects scheduled:

ARMY AND AIR FORCE			
Location	Units		
Ft. Rucker, Ala....	*120	Ft. Carson, Colo...	500
Redstone Arsl., Ala.	*270	Rky. Mt. Arsl., Colo.	20
2 Rk. Ra. Sta., Cal.	*33	Ft. McNair, D.C....	46
Ft. Ord, Calif. ....	*189	Ft. Benning, Ga....	1000
Ft. Benning, Ga. ...	*1000	Ft. McPherson, Ga.	107
Jeffer'ville QM, Ind.	*24	Camp Stewart, Ga.	388
S'ky Hill AFB, Kan.	*535	G'te Cy. Eg. D., Ill.	65
Ft. Knox, Ky. ....	*2042	Ft. Sheridan, Ill....	150
Ft. Holabird, Md....	*198	Jeffer'ville QM, Ind.	24
DA Rec'g. Sta., Md.	*12	Ft. L'v'worth, Kan.	300
Ft. Hancock, N.J..	*25	Ft. Riley, Kans. ...	433
Ft. Wd'worth, N.Y.	*120	Ft. Knox, Ky. ....	2042
Ft. Bragg, N.C. ....	*1016	Camp Johnson, La.	100
Killeen Base, Tex...	*125	Ft. Polk, La. ....	2000
Ft. Belvoir, Va. ....	*618	Ft. Holabird, Md.	198
Vint Hill Fms., Va.	*13	LaPlata ARS, Md..	12
*Bids to be opened in July and August.			

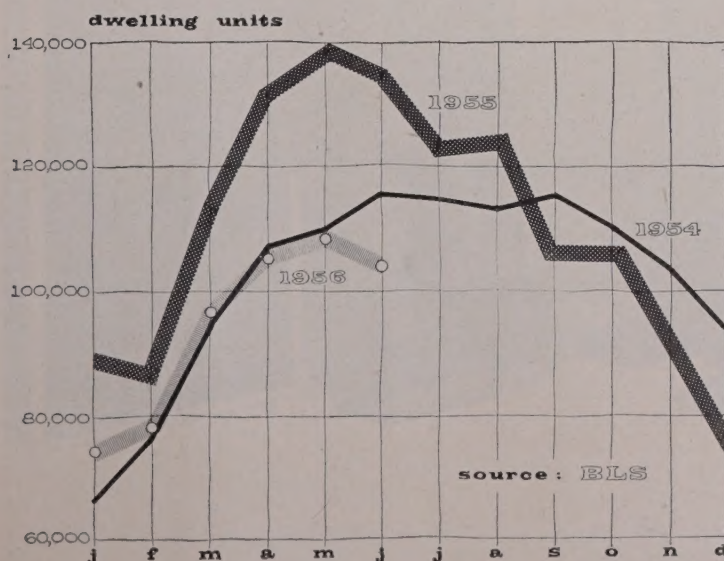
ARMY (65 projects)			
Location	Units		
Fort McClellan, Ala.	300	Ft. Dix, N.J. ....	702
Redstone Arsl., Ala.	670	Ft. Hancock, N.J....	25
Ft. Rucker, Ala....	600	Ft. Monmouth, N.J.	120
Ft. Huachuca, Ariz.	575	White Sands, N.M..	134
Y'ma T'st St., Ariz.	209	Wingate Dpt., N.M.	8
Pine B'ff Arsl., Ark.	34	Ft. Jay, N.Y. ....	238
Benecia Arsl., Calif.	14	Ft. Totten, N.Y. ...	72
Camp Irwin, Calif.	350	Ft. W'worth, N.Y.	120
Ft. Ord, Calif. ....	189	Ft. Bragg, N.C. ...	2000
2 Rk. Ra. Sta., Cal.	33	N. C'b'land Dp., Pa.	91
Oakland AB, Calif..	88	Phila. QM Depot...	46

C'ton Tr. Dp., S.C.	12	Stewart AFB, N.Y.	300
Ft. Jackson, S.C....	300	Suffolk AFB, N.Y.	350
Ft. Bliss, Tex. ....	900	Syracuse AFS, N.Y.	216
Killeen Base, Tex..	125	Pope AFB, N.C. ...	560
Ft. Belvoir, Va. ....	618	Seymour-J'son, N.C.	1500
Ft. Eustis, Va. ....	600	G'd F'ks AFB, N.D.	240
Ft. Lee, Va. ....	500	Minot AFB, N.D....	450
Richmond QM Dp....	25	Lock'b'ne AFB, O..	400
Fort Story, Va. ....	150	Y'gstown AFB, O..	250
Vint Hill Fms. Sta..	13	Altus AFB, Okla...	700
Ft. Lawton, Wash.	66	A'dmore AFB, Okla.	750
Schofield Bks., T.H.	1326	C'ton-S'man, Okla..	500
Ft. Shafter, T.H. ...	100	Klamath Falls, Ore.	220
Tripler Hosp., T.H.	164	G. P'b'gh MAP, Pa.	280
AA locations .....	2687	Olmed AFB, Pa. ...	140
TOTAL .....	23,847	Char'ton AFB, S.C.	600

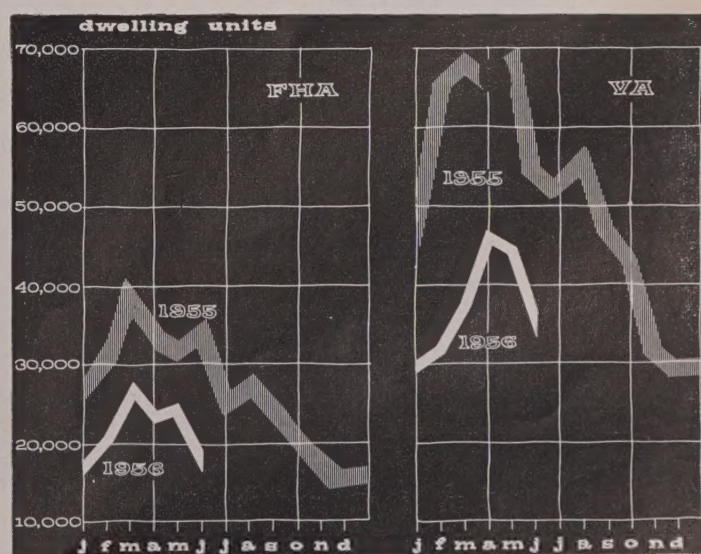
AIR FORCE (69 projects)			
Luke AFB, Ariz....	795	Abilene AFB, Tex.	1000
Yuma MAP, Ariz....	320	Bryan AFB, Tex....	135
B'th'ville AFB, Ark.	360	Ed. Gary AFB, Tex.	215
Lit. Rock AFB, Ark.	1535	Foster AFB, Tex....	500
McClellan AFB, Cal.	125	Laredo AFB, Tex..	345
Oxnard AFB, Calif.	200	Laughlin AFB, Tex.	500
Travis AFB, Calif.	500	Webb AFB, Tex....	460
Hamilton AFB, Cal.	500	F'child AFB, Wash.	250
Dover AFB, Del. ...	1000	Geiger AFB, Wash.	228
Buck'ham AFB, Fla.	470	M'Ch'd AFB, Wash.	1000
Eglin-Hurlburt, Fla.	500	Bong AFB, Wis. ...	350
H'stead AFB, Fla..	1570	Truax AFB, Wis....	523
Tyndall AFB, Fla..	420	A'd'sen AFB, Guam	1050
Moody AFB, Ga. ...	500	Hickam AFB, T.H.	600
Bkr. Hill AFB, Ind.	680	TOTAL .....	36,680
Forbes AFB, Kans.	640		

NAVY (17 projects)			
Point Mugu, Calif..	360		
Mojave, Calif. ....	695		
Albany, MCS, Ga.	160		
Glyneo NAS, Ga....	590		
Gt. Lakes NTC, Ill.	590		
Winter Harbor, Me.	20		
New River, N.C. ...	435		
B'fort MCAS, S.C..	2565		
Chase Field, Tex. ...	225		
Waikale NAD, T.H.	43		
Cp. S'th, Oahu, T.H.	168		
W. L'ch, Oahu, T.H.	37		
Nellis AFB, Nev....	395		
Stead AFB, Nev....	645		
P'mouth AFB, N.H.	1700		
McGuire AFB, N.J.	2000		
Griffiss AFB, N.Y..	460		
N. Falls MAP, N.Y.	290		
Plat'gh AFB, N.Y.	1685		
TOTAL .....	8,793		

NEWS continued on p. 52



Housing starts are now 17.7% below last year's level. In the first half of the year, starts reached only 567,000, compared to 689,900 in the first six months of 1955. June starts sank to 104,000 (102,300 private, 1,700 public). Accordingly, the seasonally adjusted annual rate fell to a low for the year—1,070,000 starts—compared to a rate of 1,110,000 in both April and May.



FHA and VA applications, already well under last year's levels, plunged sharply in June. FHA applications dropped 24% (from 24,278 in May to 18,331). VA appraisal requests fell 20% (from 44,395 to 35,620). Dropping applications virtually guarantee that housing starts will nosedive in the fall. FHA and VA account for 44.5% of the nation's output of new homes.





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UNDEGRADED INSULATION  
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# What has a Youngster got to do with Insulation?



The non-irritating qualities of Balsam-Wool are illustrated by this workman, who is handling Balsam-Wool fiber freely in using it for calking around a window frame. After calking, a vapor seal is applied over the fiber. Photo also shows how Balsam-Wool helps provide protection from wind infiltration by filling cracks and crevices.

Just this: Anyone can handle Balsam-Wool insulation without getting "splinters" in his fingers... the clean, non-irritating, cellulose insulating mat is so gentle, so easy to handle on the job. No wonder carpenters and contractors like to work with Balsam-Wool!

But with all its gentleness, Balsam-Wool is a *tough* insulation. Sealed in rugged liners, it withstands handling on the job—doesn't tear easily, pull apart or settle. Rugged spacer flanges (a reinforced flange for application to framing) simplify application.

Add to that high insulating efficiency...resistance to moisture and to wind...and you have the reasons why millions of builders and home owners have found Balsam-Wool a *sure* way to insulate.

Balsam-Wool insulation is sold by lumber dealers only. It's a *quality* insulation through and through, designed for the home which requires year-round comfort plus low heating or air conditioning costs. Wood Conversion Company, Dept. 236-86, First National Bank Building, St. Paul 1, Minnesota.



## BALSAM-WOOL®

*Blanket Insulation  
clean and non-irritating*





## FHA MINIMUM PROPERTY REQUIREMENTS:

## New rules on landscaping call for one tree per lot, grading with fertile soil

FHA has just adopted a complete revision of rules governing landscaping and lot improvements for one- and two-family houses.

The new minimum property requirements are stiffer. But they give local FHA offices more leeway in applying them to local conditions than MPRs governing most other house features. FHA sets forth its basic rules (officially known as "objective requirements") in broad terms. It spells out "acceptable standards" which will meet the basic rules, but also invites local offices to develop "local acceptable standards" to fit local areas.

**The new MPR, Sec. 800, will probably go into effect about Oct. 1.**

The date may vary from area to area. Moreover, FHA officials expect it will be late August or early September before the Government Printing Office finishes printing the 21-page revision and FHA distributes copies throughout the nation. Meanwhile, FHA technicians ask: "Please don't deluge us with requests for copies. There aren't any."

These are the principal changes:

**Tree and shrub planting:** This will now be required for "screening of objectionable views and providing adequate shade." Adequate shade, say the acceptable standards, means at least one tree per lot, "preferably at the southwest side or corner of the house." This was the most controversial item as FHA staffers and industry experts hammered out the new rules in a series of huddles starting last year. So thorough was the study that FHA's MPR task force under William J. O'Connor, deputy to Chief Architect Neil Connor, even brought eight FHA field architects to Washington for six weeks to review early proposals. Foundation planting will be required to soften the line between house and ground. FHA wants more foundation planting for tenant-occupied homes than owner-occupied, but soil and climate conditions vary so much the requirements are not spelled out, leaving them, in effect, up to local chief underwriters.

**Maximum slopes:** Acceptable standards establish a 2-1 slope as maximum for cut and fill banks (some steeper slopes may be approved locally). The new rules also provide for transition or rounding of the top and bottom of the bank for easier maintenance. FHA says some builders have been getting away with slopes almost impossible to negotiate.

**Grading:** FHA will be more insistent on finished grading of lots. Up to now, all it required was rough grading on the theory that buyers would finish it themselves and save money. But it hasn't worked out that way. The new rule will require finish grading of the entire lot except where existing grades and soil conditions make it unnecessary. FHA will require that soil be "suitable for lawns or plant growth or such that it can be made suitable by the owner without removal of large quantities of soil or importation of large quantities of new soil."

**Driveways:** Ribbon-type driveways will be permitted where acceptable locally, if straight and made of cement concrete.

**Walks:** FHA will be more specific about entrance walks. A minimum 3' wide walk is prescribed (in acceptable standards) for the main walk, 2' for service walks. Approach walks cannot be used for drainage. If they form a natural sluiceway for water because land slopes toward them from both sides, other drainage must be provided. Where a walk leading to a house does not go through to the street or sidewalk, but connects with a driveway, the driveway must be widened from 8' to 10' minimum for the distance it serves double duty.

**Rough grading:** FHA will require more definite controls to prevent damage to walks and drives from settlement of the subgrade. Moreover, acceptable standards demand that topsoil and "desirable existing trees, shrubs and ground cover" be "preserved and protected" during construction—"where practicable."

**FHA is now shooting for a complete overhaul of its MPRs by next January.**

Everything is being restudied, say FHA technical men. But the main aim will be to complete consolidation of MPRs into a few or even a single document instead of the 30-odd in force now.

Major revision of wiring standards may be included. Its aim: increase minimums to new houses can accommodate all the new appliances. An advisory group has been working on the rules almost a year. Electrical contractors say the new rules are being delayed by builder stalling. Builders retort that upgrading is helping price their houses out of the market.

Stiffer insulation requirement may also involve reduction of the allowable heat loss limit from 55 to 50 Btu.

## 10-year warranty for hot water heaters is urged

FHA is being urged to require a ten-year warranty on hot water heaters.

The recommendation was made by Building Research Advisory Board after a study at FHA's expense. FHA has been deluged with complaints from all over the country that water heaters are failing (leaking excessively or not heating water properly) just after expiration of the one-year warranty now required by law.

BRAB's committee of experts suggested that FHA require heater makers to 1) replace any part that is defective in material or workmanship for one year, 2) replace the entire heater free up to five years if the tank leaks, 3) replace the heater on a shared cost basis up to ten years if the tank leaks.

FHA has never required a manufacturer's guarantee to be passed on to a buyer. Officials say BRAB's ideas raise problems. For instance, what if the house is sold? Suppose the maker of a better water heater offers a 15-year warranty? Will FHA be able to give a house with that heater a higher valuation?

## FHA invites six women to review MPR revision

FHA is planning a return engagement of at least five of the 103 women who took part in the Women's Housing Congress in May. Purpose: to get their views on the overhaul of MPRs due in January.

The women were picked on the basis of their leadership in the Women's Congress (H&H, June). Date of their visit has not been set. They are: Mrs. Willard H. Eaves of Ashland, Ky., Mrs. Mary Ihinger of Topeka, Kan., Mrs. Ralph E. Peters of Waban, Mass., Mrs. W. P. Radcliff of Haskell, Tex. and Mrs. Frederick VanDenbergh of Philadelphia. They will be joined by Mrs. Frances Hendy, president of the Arcose Building Co. of Cincinnati. She was not a member of the Women's Congress.

## FHA liberalizes charter for rental projects

FHA has approved a new charter form for its rental housing projects.

It is part of the trend inside the housing agency to ease up many a rule that was tightened during the windfall scandals.

Now, says FHA General Counsel Robert Wolf, "as long as the sponsors make their payments and maintain their property, FHA will have no concern about what they do with their cash. But at the moment of default they will not be able to take any money out."

Under the old charter, stockholders and sponsors were not allowed to take any salaries from the rental corporation. Now they can.

The new charter lets sponsors put in a note or redeemable stock for 70% of equity capital. The other 30% must be non-redeemable stock. This is only a formalization of existing practice, Wolf says.

One change eliminating red-tape will let rental increases be approved automatically where they do not exceed rates originally

continued on p. 55



shown in the project analysis. Some projects have not charged the rents originally planned. They may do so now merely by notifying FHA. Where project operators are seeking rent increases because of increasing costs, they now can get action from field offices instead of Washington.

FHA overruled complaints by Sen. Harry Byrd (D, Va.) and the General Accounting Office involving use of rental income before mortgage payments start. Byrd charged that the Park City project in New York grabbed a "windfall" of rental income before amortization. GAO has urged that all net rent before FHA indorses a mortgage be used to amortize it.

But the new charter lets rental income, as long as it stays within the corporation, belong to the corporation, no matter when received.

## Hotel use of 608 units upheld by federal court

For the first time, a federal court has ruled that a 608 project can be used as a hotel.

The decision involved the 156-unit Darlington Apartments in Charleston, S. C. They are owned by Contractor Leonard D. Long.

In effect, the Charleston court ruled that since the Darlington was built in 1951, before the 1954 Housing Act banned use of 608 apartment projects as hotels, it is not bound by that law. FHA argued in its suit, filed more than a year ago, that the law *did* apply and that Long was violating it by renting apartments for less than 30 days.

District Judge Walter E. Hoff ruled that the Darlington must give priority to persons wishing to occupy units for more than 30 days, but a "reasonable number" of the units can be rented for shorter periods. He warned that the Darlington must not be advertised as a hotel and that it must continue to file a schedule of charges on all units with FHA.

The judge said there was apparently an "error in judgment" in selection of a site for the \$1,626,000 Darlington. The apartment project, though air-conditioned, is outside the city limits of Charleston beside an industrial area consisting mainly of fertilizer plants. It has 100 efficiencies, 41 one-bedroom apartments, and only 3 two-bedroom units and 2 penthouses.

In 1954, Long was acquitted in San Juan, Puerto Rico, of charges he conspired to defraud the government in construction of FHA housing projects there.

## S&Ls persuade Congress to block reorganization

Savings and loan men have persuaded Congress to block President Eisenhower's proposed reorganization of the Home Loan Bank Board.

The President, acting under his powers to reorganize the government, had proposed to split the Federal Savings & Loan Insurance Corp. off from the Home Loan Bank Board. The House of Representatives rejected the plan on July 5. Under the reorganization act, rejection by a constitutional majority of either house kills a proposal.

For S&Ls, the House action means they have won their major legislative fight of the session.

## LEGISLATIVE OUTLOOK:

# Housing bill hits snag in House rules committee on public housing issue

The 1956 housing bill hit a familiar snag during the closing days of Congress—the House rules committee. And the leading issue on which the bill snagged was equally familiar—public housing.

In a virtual reenactment of its 1955 play, the Rules committee received the House banking committee's housing bill with its 50,000 public housing units per year for three years and refused to vote it out. The vote: 6 to 4 with two Southern Democrats voting with four Republicans.

### With the issue clearly drawn the pulling began.

Democratic leaders in the banking committee refused to bring up another bill. Republican Congressmen shared a strong inclination simply not to vote any housing bill at all this year. Their fear: if even a bare bones bill were voted out by the House, a House-Senate conference would probably restore a lot of public housing as it did last year.

HHF Administrator Albert M. Cole, in an unusually strong attack on pending legislation, called the House measure "unrealistic, excessive and ill-conceived." Retorted Sen. John J. Sparkman, chairman of the Senate banking committee: "buckshot barrage of meaningless cliches."

There was a notable lack of alarm by NAHB and NAREB. While they said they wanted a housing bill passed, it seemed clear that if no housing bill meant no public housing they would not be too unhappy if there were no housing bill.

**At this impasse, President Eisenhower summoned his legislative leaders to Gettysburg and gave them a list of his priority legislation. Among the measures: a housing bill.**

Administration strategy called for Rep. Charles Halleck (R, Ind.) House Republican Whip, to jockey the housing bill onto the floor, then get a substitute bill approved—probably without public housing. With such a bill as a bargaining point it was the Administration's feeling that compromise measure would have no more than the 35,000 public housing units asked by the President.

A one-year extension of the VA housing for World War 2 vets seemed likely to pass Congress. The new cut-off date: July 25, 1958. A second year would be allowed to close a deal contracted before the cut-off.

## Pentagon gets new formula for buying Wherry housing

Congress has given the Defense Dept. new ways to acquire Wherry Act military family housing.

The new military public works law allows purchase of Wherry housing on the basis of FHA replacement cost minus depreciation. The old law, much less attractive to owners of the nation's 83,000 Wherry rental units, emphasized a project's rental income. Thus the sicker the project, the lower the appraisal.

The new law also allows the Pentagon to condemn a Wherry project if an owner balks at selling, thus letting the courts judge what is a fair price.

No matter how the Defense Dept. may acquire a project, the owner will get only the difference between the sales price and the outstanding mortgage.

Though Congress has indicated it would like to see Wherry housing liquidated, Defense officials indicated that they expect to use the power to buy sparingly. Moreover, Congress has not appropriated any money for the purchases.

## US aid for sewer plants expected to help builders

More federal aid to help local communities finance sewage treatment plants has been approved by Congress. The legislators have not yet voted money to make it work.

The new program, specifically aimed at stream pollution, provides federal grants of \$50 million a year for 10 years. Cities can get 30% of the cost of a sewage treatment plant up to a maximum grant of \$250,000. The law also allows an advance equal to 30% of the cost of preliminary surveys and planning.

The program will be administered by the Water Supply and Water Pollution Control Program of the US Public Health Service.

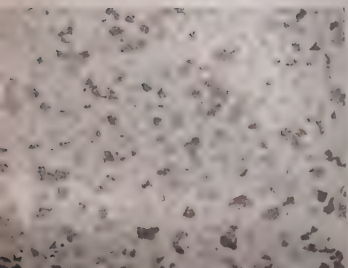
Agency officials said they believe the program will help suburban counties tie existing privately owned plants together and so encourage building in nearby areas which now have no sewer service available. They said the program may also encourage cities to expand existing disposal plants and make service available to suburban areas beyond the corporate limits. NEWS continued on p. 57



# Here's the new look in



*Terrazzo Corlon*



*Decoresq Corlon*



More home buyers want plastic floors today than ever before, and a recent survey shows that about 6 out of 10 consumers prefer flooring in sheet form. Now you can give this combination of features to any home—even one without a basement—for the new Armstrong Corlon can be installed safely over grade-level concrete. This wonderful flooring is available in 10 best-selling styles—8 colors in the Terrazzo design shown in the photograph above and 2 handsome Decoresq motifs.



## Ike vetoes Congressional review of military housing

A bill which would have let two Congressional committees review every proposed military family housing project was vetoed in mid-July by President Eisenhower. It was part of the military public works bill.

The President asserted the review proviso violated the constitutional principle of separation of powers. The measure would have prevented the Pentagon from spending money authorized for Capehart and other housing projects until it had "come into agreement" with the House and Senate armed services committees on the need for them. The screening was backed by NAHB and NAREB, who have complained of over-programming of military housing.

## Windfall scandals bring first criminal conviction

FHAs windfall scandals of 1954 may be forgotten, but they are not yet gone. Items: ▶ The government finally won its first criminal conviction—in a case bearing no relation to Sec. 608 or windfalls. Richard C. McCormick, former Baltimore automobile dealer, was found guilty by a federal jury in Washington, D. C. of lying to a grand jury during the FHA investigations.

He was charged with falsely denying he was paid \$25,000 in fees for steering builders to a law firm which said it could let them know where the government planned to put up military housing. McCormick argued that the payments were "loans," not fees.

▶ Sidney Sarner of Richfield, Conn., who heads the 13 corporations which comprise the Linwood Park 608 project in Fort Lee, N.J., was hauled into federal court in Newark after a judge cited him for contempt. He was charged with not producing company records as ordered. The records were sought by FHA, suing Sarner to collect an alleged windfall of \$2,426,821. Sarner was released on his own recognizance until court reopens in September.

▶ FHA announced that it will take over the 144-unit Westhaven Park apartment project in Amarillo, Tex. FHA contends the owners have refused to supply construction cost information. Attorney L. A. White, who represents the project sponsors, charged in reply that FHA-regulated rent ceilings make it impossible for the project to pay.

• • •

While old bones were rattling in the closet, FHA was facing a new barrage from the man whose nose for the unsavory helped set off the 608 scandal. Sen. Harry Flood Byrd (D, Va.) sniffed into reports on FHA from the General Accounting Office and said he found situations which could breed scandal.

He cited GAO's comment that there were irregularities and inefficiencies in FHA offices in New York, Kansas City and Cleveland and in 22 slum clearance projects in 15 cities. He asked both President Eisenhower and HFA Administrator Albert Cole about it.

The President wrote back that Cole would investigate. Cole's election-year findings: "There is no substantial danger of a recurrence of the windfall practices exposed by this administration."

## Builders find Soviet housing technology backward: few skilled workers, hand tools

An 18-man NAHB delegation—liberally exposed to concrete and caviar—has returned from Russia with a low opinion of Soviet housing.

In a month-long trip, the builders covered 6,315 miles—most of it by air—visiting 14 Russian cities (where they were served caviar for breakfast, lunch and dinner.)

*What they did not like:*

▶ There is very little one-family housing in Russia. The standard housing, built by the government, are apartments five to nine stories high.

▶ Russia's skilled labor pool, decimated by war, is tiny. Skilled workmen go to public works projects. Most housing labor is unskilled women. Result: finishing work—plumbing, plastering, painting and wiring—is all poor.

▶ Russians are not maintenance-conscious. When poor finishing shows up in scaling paint and falling plaster, they let it go.

▶ The Russians try to provide an average of 9 sq. meters per person in housing. Soviet citizens are still packed in at the rate of 6 to 7 sq. meters per person. This plus poor maintenance tends to make even the newest

Soviet apartment building a slum within months of completion.

▶ The Russians are neglecting hand tools while building with cranes and bulldozers. The builders said they saw no wheelbarrows in Russia nor any well-made shovels or trowels.

*On the positive side the US delegation was impressed by:*

▶ Progress in the use of concrete, particularly in hydro-electric dams and in prefabricated concrete structural parts. Prefab concrete is one Soviet answer to its shortage of skilled labor, the US builders were told.

▶ City planning. Streets are wide. There are many public parks and recreational areas. Buildings are set back from the sidewalks. Reasons: 1) war-damaged cities were able to start their planning from scratch; 2) the government is the only land owner.

Before the American delegation left Russia, it had two day-long meetings with 100 members of Russia's Ministry of Construction. Reported Delegation Chairman Earl W. Smith of El Cerrito, Calif.: "They were very eager to get all suggestions we could give them on how to improve their building."

## NAACP sets new tactics to promote integration, raps NAHB, administration

The Natl. Assn. for the Advancement of Colored People says it is going to switch tactics in its fight against segregation in housing.

Now, the accent will be on social instead of legal strategy. Plans call for intensive local campaigns "designed to tell our story."

The Urban League has already started such a program with meetings at Elizabeth, N.J. and Columbus, Ohio (both were limited to invited experts in the field; the press and public were barred).

Delegates to NAACP's annual June convention in San Francisco showed approving interest in the idea. Madison Jones, NAACP's chief housing adviser, said it means "asking branches to sit down with the local real estate board, local affiliates of mortgage bankers groups, local affiliates of NAHB to arrange meetings to show them our side of the picture. We think this is a technique to dispel fears." (Some delegates complained: "Builders won't even sit down with us. We've written letters that are never answered.")

Although Mrs. Constance Motley of New York, NAACP's legal expert on housing litigation, said persuasion has become more important than court action to fight housing segregation, NAACP laid plans to seek two new laws attacking segregation in many states. It wants:

1. Laws akin to New York State's Metcalf-Baker Act which prohibits segregation in any FHA or VA-aided project of 10 or more units on contiguous land. (Enforcement of the law, which applies to units "built, repaired or maintained" with government-insured loans, came under jurisdiction of Charles Abrams' State Commission Against

Discrimination July 1. But Abrams has indicated he will tread softly for a while, stress education instead of public hearings which can end with a cease-and-desist order.) NAACP thinks it has a good chance of getting a law like New York's adopted in New Jersey. The Illinois legislature defeated one at its last session.

2. Amendments to savings and loan acts to forbid granting mortgage loans on a segregated basis. New Jersey adopted such a law in December 1955.

Other points in NAACP's housing program:

▶ It blasted NAHB—by name—for advocating "planned housing developments directed toward any specific minority group."

▶ It demanded Congress investigate "the practices of mortgage institutions, real estate boards and home builders which in fact maintain segregated neighborhoods by a 'gentleman's agreement.'" It condemned builders, realtors and lenders who refuse "to make loans to qualified minority group members except in certain restricted areas."

▶ It attacked the Eisenhower administration for not doing more to promote integrated housing.

*Having thus militated in favor of equal treatment, NAACP asked for some special treatment for Negroes. It:*

▶ Urged a "substantial increase" in public and middle-income housing. (42% of public housing is now Negro-occupied.)

▶ Ordered all NAACP branches to "press for adequate and qualified minority representation on all local public agencies involved in urban renewal and other housing programs."

NEWS continued on p. 62





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**"Gold Bond *TWINSULATION*<sup>®</sup>  
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York Air Conditioned Homes!"**



says **LEON N. WEINER** of  
*Franklin Builders Homes, Inc.,  
Wilmington, Delaware.*



This imaginative home in Wilmington is typical of thousands of homes built in the Philadelphia-Wilmington area by Franklin Builders. *Rock Wool Applicators:* Paul Wilson; *Air Conditioning:* York Corporation, York, Pa.; *Architect:* Theodore Brandow.

"We're building 800 homes on two tracts of land," says Mr. Weiner. "400 of these homes will offer our prospects famous York Air Conditioning. Gold Bond TWINSULATION made this special feature possible because of its extra insulating action. In fact *we were able to save \$350* on the smaller cooling plant needed, thanks to TWINSULATION. On 400 homes that comes to \$140,000! And, of course, we are able to offer buyers of our homes both lower cooling and lower heating costs—important points in our sales story.

"We save on the cost of applying the insulation,

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For the complete story on how Gold Bond TWINSULATION can cut your costs and help sell *your* homes, call your Gold Bond salesman or write direct to National Gypsum Company, Buffalo 2, New York.

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## MORTGAGE MARKET:

## Will FHA boost interest rate? Some say 'yes—when Congress quits'

Will FHA's interest rate—pegged at 4½% for the last two years—soon be boosted in line with the general rise in interest rates?

There is growing feeling among mortgage bankers that FHA may do just that if Congress does not extend VA loans for World War 2 vets. FHA has clung to 4½% mainly because officials do not dare put it higher than VA, which is limited by law to 4½%. If VA becomes a dead duck, the inhibition would vanish. FHA can go as high as 6% without further action by Congress.

Dissatisfaction with the 4½% rate is widespread. Lenders call it a fiction. Builders object to paying discounts up to 4 points.

In Cleveland, VA and FHA deals have dropped from 61% of total housing sales to 45% in a year. Conventional deals increased from 37% to 52%. In Oklahoma City, some builders say they have quit building rather than continue to pay discounts out of their profit margin.

Only apparent deterrent to a hike in the FHA interest rate would be political reaction. But some influential government leaders think a raise in the rate—after Congress adjourns—would have no political backfire at all.

The mortgage market continues tight. There were scant signs last month that the predicted late summer easing was on its way.

There were more secondary market sales but little change in prices. Savings banks, relatively inactive for several months, reentered the market but chiefly in search of bargain-priced VA paper.

Most lenders expect the market to ease by the fourth quarter, if for no other reason than a dearth of mortgages—the consequence of low starts in most areas. The most optimistic prediction came from Mortgage Banker John Halperin of New York: "Savings banks tell us we can look for a thaw to start between Aug. 15 and Sept. 1."

The rate of increase in savings bank deposits snapped back from a fall-off in May and June. Part of the reason: higher interest rates.

Opinion on the outlook for 1957's mortgage market is divided, though most share the pessimistic opinion of W. A. Clarke, Philadelphia mortgage banker, who commented: "As long as business continues at a high level I see nothing in the foreseeable future to make mortgage money any easier."

## MORTGAGE BRIEFS

### New demand for mortgages?

Commercial banks are beginning to make a strong bid for savings deposits. The move may have major significance for home building: some experts feel sure commercial banks cannot pay 2½% interest on savings accounts without switching a bigger percentage of their money into mortgages.

The trend is new. A year ago, for instance, Manhattan's big Finest Natl. City Bank was paying 2% on savings accounts. Now, it has hiked the rate to 2½%; Chase Manhattan Bank is bidding 2½% for savings. Detroit banks are offering 2½% on any savings kept on deposit more than a year (a split-level rate which originated with New York Savings banks). Boston commercial banks have lately hiked their rates from 1 or 1½% to 2%, and are actively advertising for new accounts.

### FHA discounts climb again

Discounts on FHA Sec. 203 mortgages for immediate delivery in the secondary market rose again in June, but not so fast as in May.

FHA reported the average July 1 price was 97.6, compared to 97.8 June 1 and 98.3 May 1. The figures dovetail with results of House & Home's survey (below). Both indicate the mortgage market is bottoming out.

FHA's data are based on opinions of directors of 71 insuring offices, not actual transactions. Latest figures:

OFFERING PRICES, FHA 203S  
Immediate Delivery

ZONE	July 1		June 1		May 1	
	AVERAGE	RANGE	AVERAGE		AVERAGE	
Northeast	99.7	99-par	99.7		99.8	
Mid-Atlantic	98.3	96.5-par	98.5		99.1	
Southeast	97.1	96-98	97.6		98.2	
North Central	97.3	96-99	97.1		97.9	
Southwest	97.4	96-98.5	97.6		98	
West	97.7	94-99	98		98.4	
US AVERAGE	97.6	94-par	97.8		98.3	

## MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee, who retains servicing.)  
As reported to HOUSE & HOME the week ending July 13

VA 4½s							FHA 4½s (Sec. 203) (b)						
City	30 year, no to 2% down		25 year, 2% down		25 yr. 5% down or more		City	Minimum down* 30 year		Minimum down* 25 year		25 year, 10% down	
	Imme- diate	Future	Imme- diate	Future	Imme- diate	Future		Imme- diate	Future	Imme- diate	Future	Imme- diate	Future
Boston local	par-101	par-101	par-101	par-101	par-101	par-101	Boston local	a	a	a	a	a	a
Out-of-state	94-96	94-96	95-96	95-96	96b	96b	Out-of-state	96½-97b	96½-97b	96½-97	96½-97	a	a
Chicago	96-97½	96-97	97-98	97-98	97½-98	97½-98	Chicago	96-97½	96-97	97-98	97-98	97½-98	97½-98
Cleveland	96	95	96	95	97½	97	Cleveland	98	97½	99	98½	a	a
Denver	96½-98	96-97½	96½-98	96-97½	97-99	97-99	Denver	98-98½	97½-98	98-98½	97½-98	97½-99	97½-99
Detroit	95-96	95	96½-97½	96½	97-98	97½	Detroit	97-98	97	97½-98½	97½-99	98-99	98½
Houston	95	95	95-95½	95-95½	96-97	96-97	Houston	97	97	97-98	97-98	97½-98	97½-98
Jacksonville	95½-96½	95½-96½	96-96½	96-96½	96½-97	96½-97	Jacksonville	97-97½	97-97½	97-97½	97-97½	98	97½
New York	99-par	99-par	99-par	99-par	99-par	99-par	New York	99-par	99-par	99-par	99-par	99-par	99-par
Philadelphia	97b	97b	98b	98b	98	98	Philadelphia	99	99	99	99	99	99
San Francisco	95	94	95-95½	94½-95	97	96-97	San Francisco	a	a	a	a	98-99	a
Wash., D.C.	97	96½-97	97½	97	97½-98	97½	Wash., D.C.	98½-99	98	99	98½	99	98½

► Immediate covers loans for delivery up to 3 months; future covers loans for delivery in 3 to 12 months.

► Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.

► Quotations refer to houses of typical average local quality with respect to design, location and construction.

NOTES: a—no activity. b—very limited market at this price.

\*7% down on first \$9,000

SOURCES: Boston, Robert M. Morgan, vice pres., Boston Five Cent Savings Bank; Chicago, Maurice A. Pollak, exec. vice pres., Draper & Kramer, Inc.; Cleveland, William T. Doyle, vice pres., Jay F. Zook, Inc.; Detroit, Harold Finney, exec. vice pres., Citizens Mortgage Corp.; Houston, Donald McGregor, exec. vice pres., T. J. Bettes Co.; Jacksonville, George Dickerson, Stockton, Whatley, Davin & Co.; New York, John Halperin, pres., J. Halperin & Co.; Philadelphia, W. A. Clarke, pres., W. A. Clarke Mortgage Co.; San Francisco, Raymond H. Lapin, pres., Bankers Mortgage Co. of California.



## FHA eases discount ban

FHA bowed to the inevitable last month. It decided to let some buyers of FHA-insured housing pay mortgage discounts—legally.

The new order covers only multifamily housing. It will affect chiefly Sec. 207 rental and Sec. 213 cooperative projects. But Secs. 220, 221 and Title VIII military housing are also included. (Since FHA does not try to control the price of sale housing, the home buyer pays the discount in the form of higher prices—despite administrative fiction to the contrary.)

Up to now, FHA has imposed no ceiling on discounts that may be paid—presumably by sponsors and builders—on mortgages sold in the secondary market. But a lender originating a mortgage for his own portfolio was barred from charging the borrower more than one and one-half points on a multifamily housing project. Henceforward, FHA announced, it will make no distinction between lenders originating for their own portfolio and lenders originating loans for re-sale.

The agency acted after several co-op ventures in New York were refused loans unless FHA would permit a discount reflecting the market price of mortgage money. Said Commissioner Norman Mason: "FHA is opposed in principle to the collecting of discounts from purchasers. (But) it may be unfair to prevent individuals and cooperative groups from proceeding at all." He called the new rule "temporary."

## Debenture rate raised

FHA has boosted the interest on its debentures effective July 1—from 2½ to 3%. FHA issues 20-year debentures to pay off its insurance commitments when a loan goes bad. The increase applies to Secs. 203, 207 and 903. The hike not only gives official recognition to rising interest rates. It also focuses attention on whether FHA will boost its 4½% mortgage interest rate.

## AIA studies proposals for hurricane building code

Should all homes along the Eastern seaboard be built to withstand hurricanes?

AIA, mindful of the storms which have smashed middle-Atlantic and Northeastern states in the last three years, has named a "hurricane-resistance committee," headed by Architect Clinton Gamble of Fort Lauderdale, Fla., to investigate and recommend. (Every Florida coastal city has had a rigid hurricane code since the big storms of the late 20's.)

The Florida code, in effect, requires houses tied into one unbreakable unit. In concrete block-stucco construction (which predominates on the Florida east coast), footings are linked to the concrete tie beam by steel reinforcing rods. Wood members are bolted to the tie beam, roof rafters are anchored by galvanized brackets.

Gamble thinks it would cost about \$500 more to build a small frame house with a tie-down plan. (Galvanized brackets, the key item cost 15¢ each. Brackets for an average frame home would cost about \$75.)

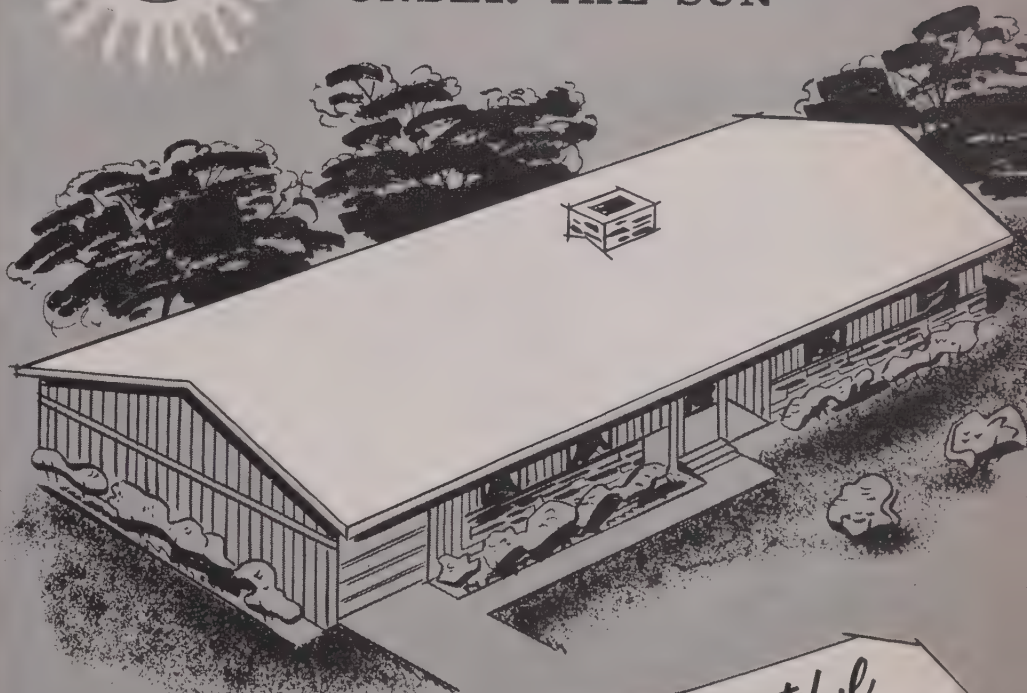
NEWS continued on p. 66

## WHITESTONE ROOFING MARBLE

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**5328 Truscon Series 138 Double-Hung Steel Windows  
used in Winston Park Subdivision where . . .**

**IN 1955 THEY SOLD OUT 300**



600 additional homes are now under construction for 1956—  
using 10,000 Truscon® Double-Hung Steel Windows—Series 138.

**REPUBLIC**



*World's Widest Range of Standard Steels*





# QUALITY HOMES IN 1½ DAYS

- Prices averaged \$24,000
- 1500 buyers on waiting list

The builders of Winston Park in Melrose Park, Illinois (near Chicago), broke all known national sales records for homes in their price class. They sold out 300 over one week end and had buyers standing in line for more.

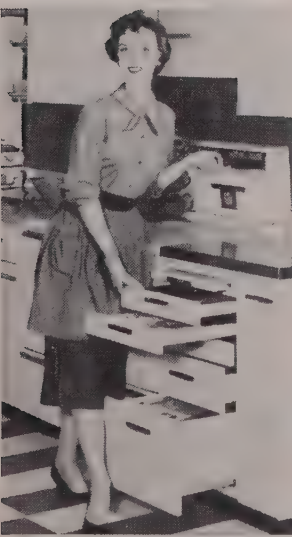
The Winston homes are the split-level type with 2000 to 2150 square feet of living area, priced from \$21,500 to \$28,500. They contain three bedrooms, 1½ to 2½ baths, finished recreation rooms, basements, attached one- and two-car garages, built-in oven with counter-top range. Truscon Series 138 Double-Hung Steel Windows are featured.

The Truscon "138" is the trouble-free window. It is

delivered assembled. Simple anchors allow fast, easy erection in any type of wall. All hardware is attached. Your only field work is glazing and painting to match your own color styling.

Stainless steel weather stripping and stainless steel sash balances are built-in. The window is ready to receive standard Truscon full or half screens, storm sash or KoolShade Screens.

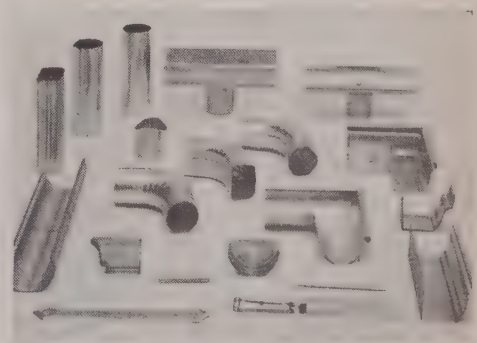
A wide range of types and sizes is quickly available through Truscon dealers, backed by all the facilities of Truscon's nation-wide warehouse service. Send coupon now for complete Truscon Metal Window Catalog.



**HIGHEST QUALITY REPUBLIC STEEL KITCHENS** now available to builders in Turquoise, Pink, Yellow— or White. Republic Steel Kitchens are loaded with selling features to give you the "custom kitchen" look at standard kitchen price. Special cabinets for built-ins. See your Republic Steel Kitchens Distributor, or send coupon.



**QUALITY CONSTRUCTION CALLS FOR "CONCRETE PLUS"** Truscon Welded Wire Fabric. It reinforces and protects concrete slabs in driveways, foundations, steps, floors and patios. Truscon Welded Wire Fabric lays flat, is easily handled and placed. Can be bent, shaped and fashioned on the job. Available through Truscon warehouses in easy-to-handle rolls. Pennies buy you "concrete plus."



**QUALITY ROOF DRAINAGE PRODUCTS** now are made of stainless steel. Republic's Berger Division manufactures a complete line of ready-to-use drainage items and accessories—all made of Republic ENDURO® Stainless Steel. And competitively priced. Stainless resists rust and corrosion, resists damage, cannot stain painted siding, lasts for life. Send coupon for facts.

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<input type="checkbox"/> Republic Steel Kitchens	<input type="checkbox"/> Stainless Steel Drainage Products

Name \_\_\_\_\_ Title \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



## MATERIALS &amp; PRICES:

# 156 building suppliers ranked among 500 biggest US industrial companies

Companies which supply the building industry have prospered as much as the industry itself.

The proof lies in the list of the 500 biggest US industrial firms just published by HOUSE AND HOME's sister magazine, FORTUNE. Of the 500 firms listed, 26 sell more than half of their output to the construction industry. Another 130 companies sell at least a part of their production to some segment of the building industry. Taken together, the lists give impressive evidence how important the \$43 billion a year of new construction (of which \$15 billion for home building is far and away the largest segment) is as a market for US industry. Companies are ranked according to 1955 sales.

## THESE FIRMS SELL MORE THAN HALF THEIR OUTPUT TO CONSTRUCTION:

Rank	Company	Sales	Assets	'55 Profits	1st 1/4 '56 Profits
'55 '54		(\$000)	(\$000)	(\$000)	(\$000)
99 100	American Radiator & Std. Sanitary	339,576	232,275	22,634	4,431†
104 102	Crane	331,421	219,412	9,030	2,132
109 114	Weyerhaeuser Timber	316,733	373,755	49,241	11,383
123 117	Johns-Manville	284,741	216,947	23,511	4,111
137 146	U. S. Gypsum	258,686	253,900	40,381	9,701
144 144	Armstrong Cork	249,386	151,289	14,542	3,698
229 246	U. S. Plywood	150,566	122,847	7,527	2,660
233 241	National Gypsum	148,219	148,074	15,764	4,578
248 274	Otis Elevator	141,547	101,970	12,243	2,516
256 204	Combustion Engineering	135,778	113,060	5,625	2,204
257 360	Certain-teed Products	135,433	77,962	8,055	1,237
266 248	Tecumseh Products	129,453	43,297	6,285	na
295 323	Long-Bell Lumber Co.	105,749	90,655	9,730	1,942
306 300	Flintkote	100,996	75,309	4,946	633
326 408	Georgia-Pacific Plywood	91,966	58,817	6,203	1,860
330 333	Lone Star Cement	91,514	104,381	14,779	2,708
348 369	Hines (Edward) Lumber	85,623	40,849	5,204	na
365 355	Ruberoid	82,134	56,248	4,511	661
412 420	Celotex	71,137	54,575	5,082	1,532
415 429	Lehigh Portland Cement	70,895	87,231	11,262	1,538
418 435	Ideal Cement	69,972	72,056	13,813	2,221
424 456	Carey (Philip) Mfg.	68,020	43,358	2,637	108
430 417	Harnischfeger	66,253	49,598	1,529	1,318
447 480	National Homes	62,310	56,988	2,101	na
465 485	Mullins Manufacturing	59,831	41,933	1,664	na*
466 470	Congoleum Nairn	59,759	62,353	2,246	397

† Does not include foreign subsidiary earnings.

\* Acquired by Am. Radiator &amp; Std. Sanitary.

## THESE COMPANIES HAVE A STAKE IN BUILDING:

RANK	COMPANY	SALES	PROFITS
'55 '54		(\$000)	(\$000)
1 1	General Motors	12,443,277	1,189,177
4 3	US Steel	4,097,680	370,000
5 6	Chrysler	3,466,222	100,063
6 4	General Electric	3,095,352	200,924
8 12	Bethlehem Steel	2,096,617	180,192
10 10	Du Pont (E. I.)		
	De Nemours	1,909,197	431,556
17 13	Westinghouse Electric	1,440,977	42,803
18 19	Goodyear Tire & Rub.	1,372,176	59,666
21 28	Republic Steel	1,188,560	86,271
22 24	Union Carbide & Carbon	1,187,153	140,756
24 25	Firestone Tire & Rub.	1,114,870	55,379
26 23	Radio Corp. of Amer.	1,055,266	47,525
28 32	US Rubber	925,339	33,559
31 26	Douglas Aircraft	867,504	28,215
33 35	Alum. Co. of Amer.	845,028	87,601
36 33	Borden	810,127	21,654
38 44	Goodrich (B. F.)	755,017	46,662
42 55	Jones & Laughlin Steel	696,538	50,104
43 50	Armco Steel	692,683	64,351
47 45	Continental Can	666,266	24,172
50 49	Inland Steel	659,706	52,466
52 52	Anaconda Co.	636,249	65,256
53 51	Allied Chem. & Dye	628,514	52,128
54 57	National Steel Corp.	622,019	18,289
55 70	Youngstown Sheet & Tube		
		617,407	11,701
57 68	Pitts. Plate Glass	581,966	61,434
58 59	Olin Mathieson Chem.	560,480	14,558
61 81	Borg-Warner	552,192	11,076
62 71	Kennecott Copper	548,266	125,516
65 54	Allis-Chalmers	535,069	21,805
66 72	National Lead	533,729	47,890
68 75	Caterpillar Tractor	523,893	34,773
69 87	Monsanto Chemical	522,349	42,170
77 69	Dow Chemical	470,742	37,414
79 78	American Cyanamid	451,088	38,714
83 103	Crown Zellerbach	414,080	44,128
88 97	Reynolds Metals	384,888	34,307
90 85	Phileo	373,359	8,423
91 89	Owens-Illinois Glass	370,348	27,022
95 108	Phelps Dodge	353,416	72,319
100 104	Deere	339,576	28,336
114 83	Avco Manufacturing	299,332	758

118 147	General Tire & Rub.	295,731	9,705
125 131	Minn. Mining & Mfg.	281,861	34,699
126 152	Libbey-Owens-Ford Glass	281,544	36,046
127	Whirlpool-Seeger	280,363	14,130
131 136	Kaiser Alum. & Chem.	268,133	28,565
138 119	Colo. Fuel & Iron	257,543	10,887
140 161	St. Regis Paper	257,057	19,048
141 181	Allegheny Ludlum Steel	255,241	14,986
145 167	Wheeling Steel	246,695	17,296
148 132	Minneapolis-Honeywell Reg.	244,482	19,279
151 165	Revere Cop. & Brass	242,681	11,282
152 195	Crucible Steel	237,715	13,209
153 120	Smith (A. O.)	237,104	6,013
157 118	Babcock & Wilcox	233,291	13,487
160 168	Koppers	228,473	10,415
164 177	Kimberly-Clark	223,978	20,290
167 155	Archer-Daniels-Midland	221,024	5,750
171 154	Glidden	216,982	8,404
178 113	Admiral	202,362	2,427
186 202	Carrier Corp.	190,015	8,487
195 247	Pittsburgh Steel Co.	176,732	7,515
198 294	Sharon Steel	171,181	7,988
204 257	American-Marietta	165,340	11,110
209 203	Grinnell Corp.	163,183	8,325
210 234	Rohm & Haas	161,644	17,687
211 227	Owens-Corning Fiberglas	161,294	10,915
212 193	Rheem Manufacturing	160,620	5,244
213 229	Norton Co.	160,528	"
219 209	Corning Glass Works	157,664	18,627
231 251	Air Reduction	149,232	11,569
232 279	Bridgeport Brass	148,601	5,539
236 270	Scovill Manufacturing	146,943	5,508
238 236	Ingersoll-Rand	145,446	27,496
239 275	Anac. Wire & Cable	145,218	7,015
240 242	American Machine & Foundry	145,001	4,774
241	McLouth Steel	144,987	8,148
247 233	McGraw Electric	142,496	9,501
250 226	Worthington	140,872	7,215
255 238	Kaiser Steel	136,149	5,711
261 239	Oliver Corp.	133,600	4,796
265 269	Link-Belt	129,453	7,603
267 296	General Cable	129,368	6,548
280 382	Granite City Steel	116,294	12,611
281 335	Eagle-Picher	114,480	5,004
283 308	Stewart-Warner	113,811	6,163
286 276	Fairbanks, Morse	111,919	2,707
287 312	U.S. Pipe & Foundry	111,267	11,300
289 375	Acme Steel	109,861	6,172
290 289	Blaw-Knox	109,161	2,444
294 385	Porter (H.K.) Co. Inc.	106,100	6,433
297 321	Yale & Towne Mfg.	104,923	4,680
302 484	Detroit Steel Corp.	101,803	6,318
304 341	Keystone Steel & Wire	101,381	9,500
305 373	Amer. Chain & Cable	101,125	6,079
307 318	Interchemical	100,489	4,748
318 381	Pocharontas Fuel	94,781	4,832
320	Hooker Electrical	94,182	10,555
322 342	Maytag	93,067	6,267
323 365	Stanley Works	92,497	5,643
325 338	Wagner Electric	92,289	4,668
332 352	Electric Storage Battery	90,751	2,585
338 313	Fibreboard Products	89,818	6,452
362 305	York Corp.	82,714	2,426
376 362	Lukens Steel	79,308	1,731
378 451	Square D	78,727	8,386
380 468	Motor Wheel	78,596	2,990
381 500	Copperweld Steel	78,490	2,365
394	Cerro de Pasco	74,090	14,029
100 379	Minn. & Ont. Paper	73,143	7,437
401 388	I-T-E Circuit Breaker	73,026	1,776
402 265	Murray Corp.	72,917	5,678
408 397	Bucyrus-Erie	71,737	6,517
10 437	Amer. Forest Prods.	71,297	2,633
420 383	Remington Arms	69,010	7,914
426	Mueller Brass	67,738	2,548
435	Ceco Steel Products	64,349	2,546
438 436	Robertshaw-Fulton Controls	64,033	3,750
449 483	Bird & Son	61,700	2,397
450 463	Cutler-Hammer	61,575	5,630
454 475	Climax Molybdenum	61,122	17,424
457 357	Butler Manufacturing	60,839	1,749
474 322	Servel	58,614	†(4,047)
476	Wood (Alan) Steel	58,376	2,552
477	Laclede Steel	58,191	4,047
480	Visking	57,747	5,079
482	Bohn Alum. & Brass	57,496	2,217
488	Pittsburgh Coke & Chemical	56,572	3,093

\* signifies item of information is not available

† figures in parentheses are losses



## Plywood makers to offer new package house deal

A major drive to increase use of plywood in homes, schools and churches is being readied by the Douglas Fir Plywood Assn.

The goal: to boost sales of fir plywood 56% by 1960—to 7.5 billion feet per year (1955 sales: 4.8 billion feet).

Heart of the promotion is a new technique in house construction said to use 5,000 ft. of plywood per unit as compared to the 400 ft. in the average new home. Architect Chris Choate of Los Angeles, who originated a successful prefab panel system for Builder Cliff May, has worked out a new structural scheme for the plywood association.

### Fewer framing sizes

Full details of the Choate plan have not been disclosed. Essentially, it will reduce the number of framing sizes in the house to a fraction of the number in the average new home. There will be a limited number of board, stud, joist and rafter lengths. All parts are to be pre-cut off-site and sold in a package.

When the promotion starts in the fall, the Choate packages are to be offered to builders through local lumber dealers. Joseph Weston, research director for DFPA, hopes the package will help small builders to compete with prefabbers and large on-site builders. He predicts the new package will let anyone build a home on his own lot at a price close to that of a comparable house in a project.

A prototype house is being built near Tacoma, Wash. Bugs—and insiders say there are several—are being worked out there. Next, DFPA plans to build samples in key cities across the nation.

### 'Two homes for every family'

Other plans outlined for 250 plywood manufacturers, meeting in Gearhart, Ore.:

► Architects have been retained to design

both schools and churches, using more plywood.

► W. E. Difford, managing director of DFPA, announced that the assn. will plug the theme, "Two Homes for Every Family," with the thought of encouraging construction of more vacation and leisure-time homes (using plywood, of course).

► DFPA will build a new headquarters in Tacoma to house expanded research and technical staffs.

The plywood makers re-elected Howard Garrison, former vice president and general manager of Evans Products Co. of Coos Bay, Ore., as president. A. W. Agnew of Sonoma, Calif., was re-elected vice president.

## Brick industry, regaining lost markets, will boost production 9% this year

Brickmakers think they are getting back more of the building dollar.

A new survey by Economist Robinson Newcomb for the Structural Clay Products Institute shows that:

1. Brick and structural tile production and shipments rose 14% last year while lumber output climbed only 4.7% and cement production climbed only 9.4%.

2. Another 9% gain in brick production is in prospect for this year. It compares with a probable increase in all construction of only 1%.

3. Brick makers are boosting capacity even faster than sales—twice as fast as the building industry is expanding—because Newcomb's studies have convinced them they can sell the increased output in the years just ahead. Last year, they boosted capacity 9.9% compared to a 7.4% for cement and 2.1% for steel. This year, brickmakers are boosting capacity another 1% a month.

Newcomb's survey is a good demonstration of how cooperative research can benefit the housing industry. As SCPI Promotion Director Bill Walsh observed at the New York

luncheon last month where Newcomb revealed his findings: "We never knew how big we were before or how adequately we were serving our markets."

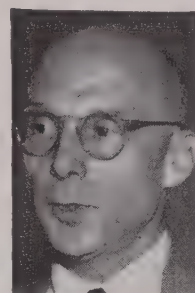
Newcomb thinks his brick figures are the most accurate ever compiled. His staff got data on 80% of the country's brick plants—representing 85% of the industry's capacity. With it, they were able to tabulate 400 million more bricks produced in 1954 (i.e., 14% more) than the Census survey had shown. The output of glazed and unglazed facing tile was 11% greater than Census has reported, Newcomb thinks.

During the last 30 years, the brick and tile industry has struggled through a deep trough. From a peak of 13.9 billion brick equivalents\* produced in 1925 the industry showed a steady decline in production through the depression and World War II, hitting a low of 1.8 billion brick equivalents in 1933. It began reviving after the War. In 1953, production reached 7.6 billion brick equivalents. In 1954 it gained 5% to reach 8 billion brick equivalents. Last year production jumped another 14% to 9 billion brick equivalents.

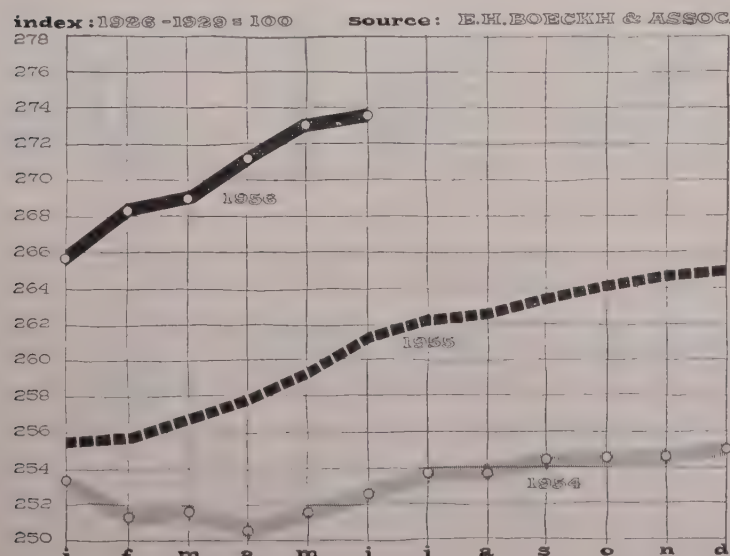
"We're convinced we're on the way back," says Newcomb.

\* A brick equivalent, according to SCPI, is an average modular sized brick 2¼" x 3½" x 7½" weighing 4.4 lbs.

NEWS continued on p. 70



NEWCOMB



Boeckh's building cost index—for residential structures—went up 0.6 of a point to 273.6 in June. Col. E. H. Boeckh blamed the rise on higher labor costs. Materials prices seemed to be standing still except for lumber, which slumped slightly. New York City experienced a 5 point rise after a wage increase for all trades.



Building materials prices fell slightly for the second straight month—from 130.8 in May to 130.6 in June. Until May prices had climbed steadily since July 1954. Plywood dropped 1.7% more, BLS reported, after a 4% drop in May. But the price of window glass went up 2.4%.





# WHAT'S NEW

*Grade for grade, Tree Life Hemlock\* is the best buy on the market today!*

FROM California, where it's preferred for exposed plank and beam ceilings, to the Midwest where rough board and batten siding is rapidly taking hold, there is a marked swing to Tree Life Hemlock. Cost and quality-conscious prefabricators like National Homes specify it for framing. Several Northwest builders use it exclusively on luxury homes, schools and commercial jobs.

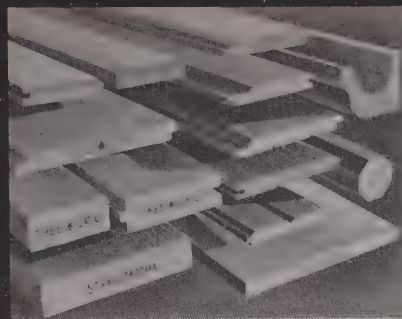
Actually, Tree Life Hemlock offers a combination of strength, appearance and low cost found in no other wood. It has greater strength-weight ratio than Douglas fir. Rivals redwood for appearance, easy finishing. Works as easily as choice white pine. Straight

grain and proper drying give it freedom from warping and twisting.

Certainly no other wood product is more carefully made. At St. Paul mills, select old growth logs are manufactured with the accumulated knowledge, skill and experience of 66 years. Tree Life Hemlock is milled full size, very carefully kiln dried, conservatively graded, fairly priced. See your supplier for details, or use coupon.

*\*TREE LIFE WEST COAST UPLAND HEMLOCK is a different and distinctly superior species (Tsuga heterophylla) grown high on the western slope of the Cascade mountains. Straight grained, not brashy, it has fewer and smaller knots, NO pitch pockets.*





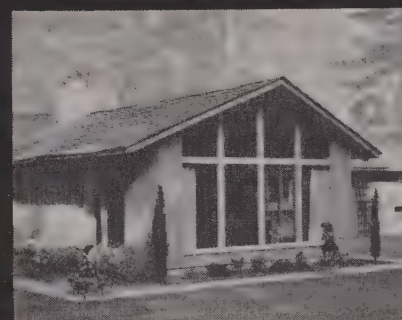
Tree Life Hemlock is available in all sizes, grades and patterns. End stamped for identification.



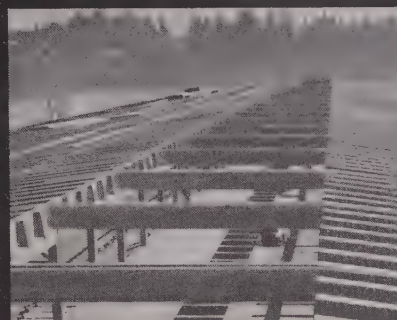
Warm, soft-toned hemlock paneling adds value, salability to any home. Takes finishes beautifully.



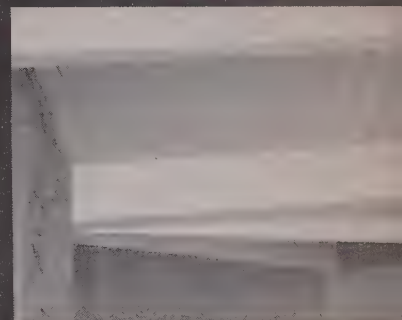
National Homes, nation's largest prefabricator, uses hemlock framing for panelized wall sections.



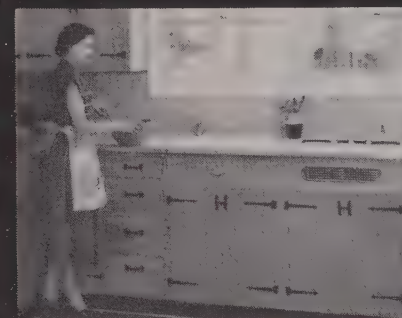
Highly durable, hemlock provides attractive and economical siding for homes, commercial buildings.



Stiff, twist-resistant hemlock structural members fully meet building code stress requirements.



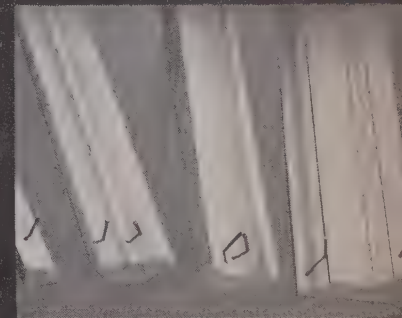
Dryness, great strength-weight ratio makes hemlock ideal for exposed plank and beam ceilings.



Ideal for cabinets and built-ins, good-looking hemlock fits trend toward natural wood interiors.



Tree Life Hemlock flooring withstands heavy wear. Actually mellows and hardens with age.



Uniformly clear grain, careful kiln drying make Tree Life Hemlock moldings easy to nail, finish.

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Please send basic Tree Life Hemlock Catalog, Specification Guide and other data.

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my home buyers more...  
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The FASCO  
POWER-HOOD**

**because**

#### **It Takes No Cabinet Space**

My prospective home buyers are all agog when I open the above-stove cabinet and show them it's empty... With the Power-Hood the ventilator is completely contained in the hood... absolutely no loss of cabinet space by ventilator or duct installations.

#### **It Slashes Installation Costs**

Comes pre-wired... installs with just one duct opening and six sheet metal screws... And there's absolutely no time-consuming cabinet cutting.

#### **It Offers Highest Efficiency of All**

The new, exclusive, super-powered Fasco TURBO RADIAL IMPELLER WHEEL offers higher air delivery, less noise... than all other conventional blower wheel ventilators... even on long duct installations. And it requires no servicing.

**and look...**

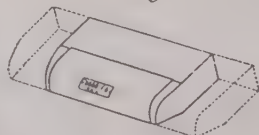
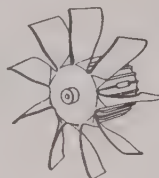
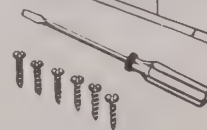
#### **The Hood is Adjustable...**

Will Fit Exactly The Hood Space I Have... From 30" to 42". And it adjusts to fit non-plumb installations where walls and cabinets are not square.

Available in White and Copperoid Enamel.  
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## **Mergers, sell-outs sweep appliance industry**

Competition among the nation's appliance makers—now reaching the cut-throat stage—means doom for many of the weaker firms, many experts think. Mergers and sell-outs are becoming commonplace.

The number of manufacturers still in business is down to 150. But Wall St. circles now predict that in a few years there may be only ten full-line appliance makers left.

The number of companies making refrigerators has dropped from 30 to 21 in a year. Last year 52 companies made freezers. There are only 32 left. The number of companies making TV sets has dropped from 175 to 50 in two years. Room air conditioner manufacturers have been reduced from 100 to 50.

Some mergers were aimed at enabling a single firm to offer a full line of appliances. (Example: consolidation of RCA with Estate, Whirlpool and Seeger). Such growth, however, brings even more pressure on the independent maker of one or two appliances. The full-line company also finds it easier to advertise: all its products benefit from plugging its brand name on any of them. The full-line company also finds it easier to get distributors and dealers.

Independents have tried to undercut their bigger competition by offering larger discounts to dealers. But full-line companies can match or better the discounts.

So far, the buyer is the beneficiary of this rugged competition. Manufacturers cry that he is buying many appliances at little more than cost. After the shakedown? A return to normal markups looks likely.

## **Lack of installers worries air-conditioning makers**

In its biggest boom ever, residential air conditioning is running into a shortage of installers that threatens to become chronic.

Some big makers fear the problem will limit the growth of central cooling. (Room conditioners are having a sellout season, after recovering last year from a 1954 shakeout that saw the room-unit industry build twice as many units as it sold, forcing many makers out of business.)

Central conditioners are plentiful, says Robert H. Lodge, sales manager for the packaged conditioner division of Mitchell Mfg. Co., but "there just are not enough qualified people to install them when the weather gets hot." Lodge says the pinch is affecting builders, too, although most builders have their coolers put in early or late in the year when contractors will bid lower because they are not so busy.

Lodge predicts 170,000 central air-conditioning units will be sold this year, a 50% jump from last year's mark. He hopes appliance dealers will team up with air-conditioning contractors to do a complete sales and installation job, but he concedes: "The air-conditioning contractor doesn't want to cooperate. He remembers the appliance dealer stole the room cooler sales market from him."

NEWS continued on p. 73



## URBAN RENEWAL:

## How are fixup drives doing? Federal Reserve figures show loans up 3%

How much are Operation Home Improvement and other rehabilitation drives boosting home modernization and remodeling?

Now that OHI has been promoting fixup full-blast for six months you can begin to see the evidence.

Results are scattered so far. One reason: OHI has mounted hard-hitting local drives only in a few big metropolitan areas; its biggest impact is in small towns, OHI says. The returns suggest two things:

1. Overall, neither OHI nor anything else has had a major effect on dollar volume of remodeling—yet. Best clue is the Federal Reserve Board's data on consumer credit, although it is far from conclusive because the only figures directly applicable to repair and modernization loans cover only loans from banks. The Fed reports modernization loans for the first quarter of the year were up a little over 3% from 1955—from \$4.65 billion to \$4.81 billion. At the same time, other consumer loans (excluding autos) zoomed 13%! BUT—
2. Where OHI, or local groups acting toward the same goal—have done a thorough promotional job, results have been spectacular.

Here is how HOUSE & HOME correspondents across the nation size up the situation:

**Seattle**, OHI's prize example, reports permits up 48%. So successful was OHI's first neighborhood fixup campaign, in Queen Anne Hill (May, News) that 24 other Seattle-area communities have asked OHI to do the same for them. Chairman Robert V. Blackstock thinks the pilot project shows the building industry has done a "miserable public relations job." A survey showed most people have little idea of how to get remodeling done and how to finance it. "Our biggest job in OHI," says Blackstock, "has been to sell the industry, not the public."

OHI officials themselves report dollar volume of remodeling permits up 50% in Oakland, Calif., up 33% in Dubuque, up 30% in Kansas City, up 72% in Odessa, Tex.

On the other hand, additions, alterations and repairs dropped 5% in New York State during the first four months of 1956.

**Los Angeles** reported a decline.

Bank loans, in many cities, are a better clue to how much fixup is going on than remodeling permits. For one thing, minor jobs usually require no building permit. Moreover, home owners and contractors alike often do not take out permits. In California, state and federal officials estimate loans for major fixup jobs are running \$20 million a month—\$240 million a year. On top of that, many jobs are paid for out of checking accounts and through open-end mortgages.

**Omaha** alterations permits are up 67% but local builders and bankers give OHI little credit, because there has been little local promotion. Even so, the US Natl. Bank says home improvement loans doubled to \$260,000 in the first four months of this year. (Repair loans were off nationally throughout 1955, as a result of FHA's drive against shady operators. FHA loans fell 33% and "dollar volume shrank 27.5%.")

Many banks say they would promote home repair more, but dared not for lack of money to lend. "Interest is tremendous," said the vice president of an Omaha bank, "if we had the money we could increase home improvement loans 25 to 50%."

Now, a big trend away from FHA title I loans is running across the country.

**Sacramento** banks, for instance, have practically abandoned FHA, but Crocker-Anglo reports modernization loans up 30%—despite fact that perhaps half of homes in the area are less than five years old.

The giant Bank of America, experts figure, is averaging between \$8 and \$9 million a month in home fixup loans, almost none through FHA. Even before the suede shoe investigations of 1954, FHA Commissioner Guy Hollyday called the bank on the carpet over FHA repair loans. Since the investigations, FHA in northern California, which used to get \$5 million a month in Title I business from the Bank of America, is down to \$500,000. For their own repair loans, some California banks charge up to \$8 discount, which is 15% interest. FHA's \$5 discount is only 9.7% interest.

**Buffalo** modernization permits are up only about 7%, but Marine Trust Co., city's biggest bank, experienced a 28% jump in dollar volume of repair loans in the first four months of the year (FHA, bank's own plan and personal loans for home improvements). Marine Trust has distributed more than 180,000 "Fix in '56" folders of its own design. Manufacturer's & Traders Trust Co. claims a 110% jump in home improvement loans in the first four months of this year—87% in FHA and 175% in its own plan.

**Denver** Lumber Dealer William K. Barr, who was local OHI chairman, reports: "We couldn't get enough interest to carry on the

promotion." Dollar volume of permits for remodeling is off 31% city-wide, but Central Bank & Trust Co. reports dollar volume of home improvement loans up 32% in first four months after aggressive advertising and promotion.

An OHI song ranks third on the local hit parade in Eugene, Ore.

Here is how dollar volume of building permits for housing alterations and repairs looks in ten cities—some with OHI drives, some without:

CITY	1st 5 mos. of 1955 VALUE	1st 5 mos. of 1956 VALUE	CHANGE IN VALUE
Buffalo*††	\$2,285,592	\$2,439,000	+6.7%
Corpus Christi...	1,256,537	689,756	-45.1%
Denver†	917,900	631,620	-31.1%
Houston†	2,641,349	5,780,511	+118.0%
Omaha*	223,904	372,741	+67.0%
Portland, Ore.*	521,605	651,900	+24.9%
Sacramento†	1,117,968	1,439,845	+28.7%
San Francisco...	1,978,589	2,117,347	+7.0%
St. Louis	823,987	789,507	-4.2%
Seattle	857,960	1,271,000	+48.0%

\* 1st four months  
† metropolitan area

††—Includes homes, industry and commercial, but local officials say volume is "very largely" homes

## Renewal box score: 1,800 units of FHA Sec. 220

Is urban renewal, whose tortoise-pace has been the despair of housing's Republican administrators, at last beginning to show real signs of progress?

FHA Commissioner Norman Mason trotted out these encouraging figures last month:

► FHA approved Sec. 220 commitments for 1,800 housing units (\$21¼ million) during the first six months of the year.

► Since the 1954 Housing Act created it, 220 commitments have now reached 2,500 units and \$28 million. They are concentrated in just five states: New York, New Jersey, Pennsylvania, Ohio and Utah.

► Applications for 2,250 units more in New York, Pennsylvania and Michigan are now being processed by FHA.

► HHFA has certified 39 renewal projects in 13 states as eligible for FHA Sec. 220.

## Builder-pioneer in fixup plans to quit field

Builder Herman Schmidt of Washington, D. C., one of the nation's first home builders to go into rehabilitation, is getting out of the field "as fast as I can."

Since 1950, Schmidt has rehabilitated some 75 decrepit dwellings, half a dozen downtown, Negro-occupied neighborhoods in the



SCHMIDT

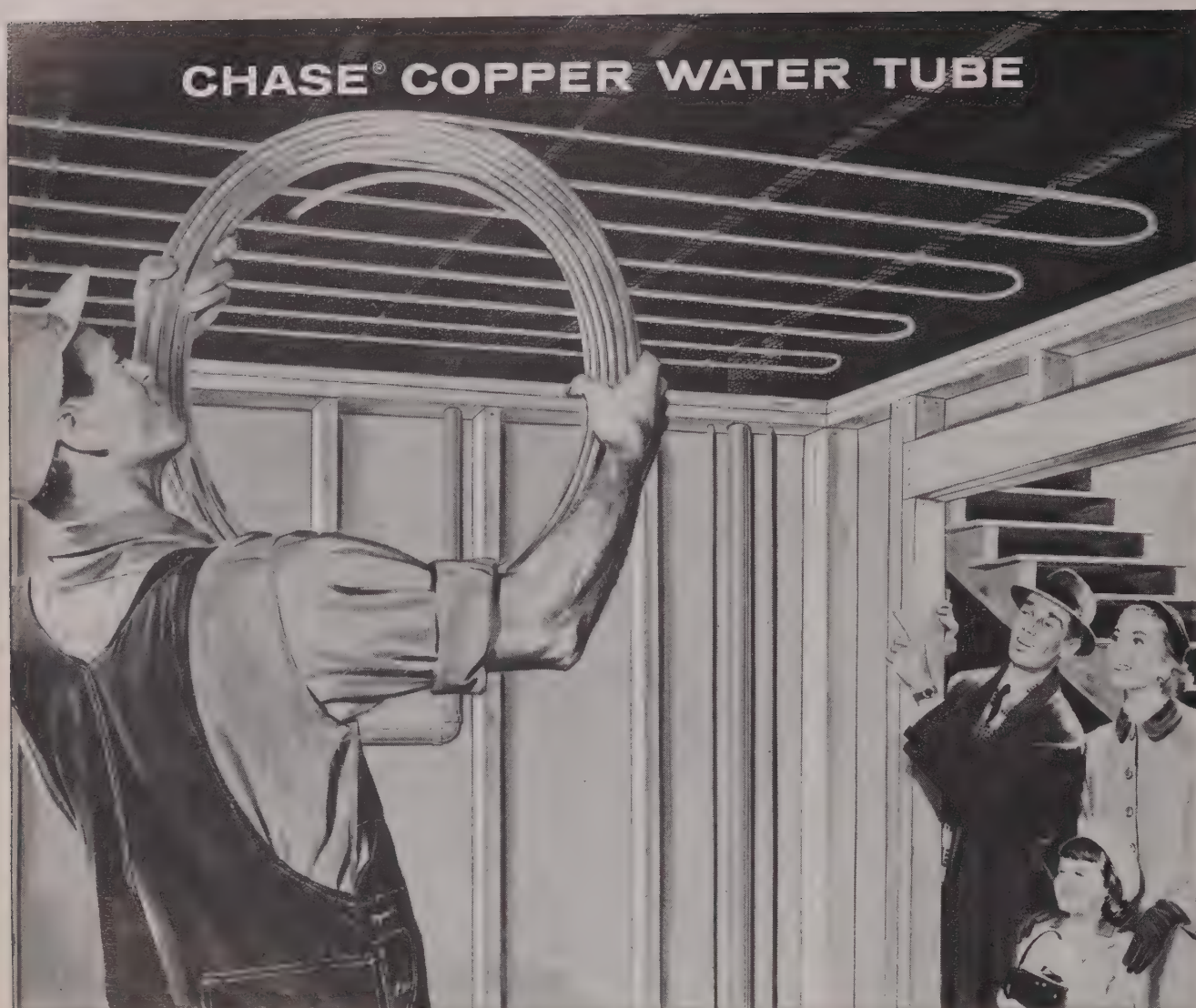
capital. He intended to sell the renovated structures. Last month, he still had 50 of them on his hands. They are "pretty well" rented but Schmidt, like most builders, feels he cannot afford to tie up his limited capital in real estate holdings.

Moreover, Schmidt reports, "the Washington market has changed now so a Negro doesn't want to buy in a depressed area even if it is a good house."

Schmidt thinks FHA's stubborn insistence on applying the same minimum property requirements to rehabilitation as to new hous-

continued on p. 77





## NO CEILING ON COMFORT HERE !

### But, plenty of ceiling on cost!

That's because lightweight, easy-handling Chase copper tube for radiant heating *installs faster!* Perfectly tempered, it easily unrolls into position on ceiling or floor. Comes in long 60 and 100-foot lengths that result in fewer joints. Connections are quickly made

with simple soldering techniques.

**Even the rugged carton** for Chase copper water tube is designed to speed handling...save time! It's color-coded for easy identification of type and size. Has a center hole big enough for a firm grip. Can be stacked, rolled or carried with ease!

**Proof that Chase** copper water tube cuts installation time is the fact that it is being used in many of the largest housing developments where over-all costs *must be low!*

If it's radiant heating, be sure the system is made with Chase copper tube and solder-joint fittings.

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ing has been the "biggest factor" in preventing rehabilitation from working on a wide scale across the nation. (FHA has just backed down on this with an order that lets local directors waive some MPRs for old houses [July, News].)

Both FHA and VA refused to underwrite mortgages on Schmidt's rehabilitated units, most of which were two-story brick row houses on lots as narrow as 13'. It was the narrow lot, says Schmidt, that proved to be the insuperable hurdle. Schmidt says he bought the units at prices ranging from \$1,200 to \$2,700 each, spent from \$2,000 to \$4,500 fixing them and sold them at prices ranging from \$7,000 to \$11,250.

So many of the fixed-up houses he sold to Negro families on conventionally financed contracts have come back to him that Schmidt now gloomily concludes: "Rehabilitation is profitable if you don't try to upgrade too much—if you don't do it thoroughly."

Yet Schmidt also believes: "You can't mass-produce remodeling jobs without tearing down an awful lot of the old house."

A big source of Schmidt's troubles, say experts who have watched his efforts, is that he picked neighborhoods which were not part of comprehensive rehabilitation or urban renewal plans. The result was that his rehabilitated units became a too-small island of better-but-more-expensive housing in neighborhoods still dominated by blight and decay.

As much as anything else, this may have killed his market.

## Renewal suffers setbacks in New Orleans, Miami

While urban renewal is making progress in cities like Chicago, it is falling down badly in other cities. Items:

► Last fall URA Commissioner James Follin, visiting Miami, hailed it as "one of the nation's top 12 cities in getting decrepit buildings torn down by code enforcement." The Miami *Herald* wasn't so sure that was the whole picture. Editors put Reporter Lawrence Thompson on the story. His nine-article series summed up: Miami may be building the country's most modern slums. Negro shanties are being torn down to make room for three and four-story apartment houses but no room is left for recreation and overcrowding was everywhere. "The big problem," he wrote, "is that there is no master plan for redevelopment of the area."

► New Orleans finally gave up plans for its big St. Monica urban renewal scheme as property owners of the area cried out in protest against plans to tear down their hovels. The owners supported the original plan for rehabilitation of the area but city and federal officials had abandoned that idea when it became obvious the project could never get off the ground. The city had planned to ask the legislature for a law enabling it to condemn land, clear it and resell to private individuals for redevelopment. After receiving protests against the overall plan, however, the city fathers decided to skip the whole thing.



## HOUSING CO-ORDINATORS:

# New breed of city official arises out of struggles to cope with urban renewal

A new kind of official is developing out of the push to solve city housing problems.

He is the housing coordinator.

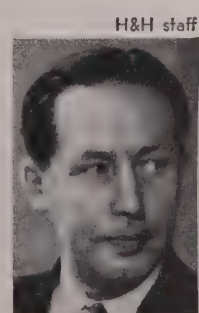
In the last year and a half, five US cities have named high-ranking officials to spend full or nearly-full time coping with housing and its brother-problems, urban renewal and redevelopment. Chicago, the pioneer in this field, has had a housing coordinator since 1947.

Cities with the oldest and worst housing, most of them along the eastern seaboard or in midwest industrial centers, are likeliest to have recognized housing as a major problem by appointing a man to coordinate it. Typically, the coordinator is appointed by and reports directly to the mayor. Several have served before as the mayor's executive assistant—a pretty good indication of how politically charged housing and renewal can be. The private industry might well ponder the fact that most of the rest come from a career background in public housing.

The titles vary, but the duties are much the same in the six major cities with housing staffers at work. The men and their jobs:

**Chicago's** Housing and Redevelopment Coordinator James C. Downs Jr. is a top policy-maker who continues to operate his private business (Real Estate Research Corp.). He concentrates on liaison with the city council and attends meetings of the city's planning and housing bodies as the mayor's representative. He is paid \$30 an hour for his time and advice.

His \$17,000-a-year deputy, D. E. Mackelmann, a blunt-talking German who came to this country in 1929 and finished his education in political science at the University of



MACKELMANN

Chicago, is the full-time man in charge of housing coordination. He copes with the gamut of housing problems—from policy conferences in Washington to removing such basic obstacles as relocation difficulties from the path of Chicago's rebuilding program.

Mackelmann was brought up in the business. In 1937 he was executive director of Chicago's Metropolitan Housing Council (now

the Metropolitan Housing and Planning Council), later was an assistant regional representative for the division of defense of the Housing Coordination and National Housing Agency in Washington. After Army service, he joined the office of the housing expeditor in Washington, left that for his new city job when Mayor Martin H. Kennelly set up Chicago's first housing coordinator office in 1947.

Mackelmann's staff includes a public relations director, administrative assistant, two planners, two research assistants and several draftsmen. His 12 relocation workers, concentrate primarily on relocating families from highway routes; Chicago's housing agencies do their own relocation. Mackelmann prepared the city's workable program and for six months supervised the staff of the Community Conservation Board, the new agency which will be in over-all charge of saving fringe areas. He has just completed work on a new housing code and is beginning a study of West Side conservation problems. He also has charge of a 13-week TV series on urban renewal which will be broadcast on a local station.

**Philadelphia's** William L. Rafsky, 36, was executive assistant to former Mayor Joseph S. Clark Jr. before becoming the city's first housing coordinator in January '54 at a salary of \$15,000. Before he came to Philadelphia he was research and education director for the AFL's hosiery workers, served three years as a labor economist with the War Production Board, was personnel director for a novelty manufacturing company in New York.

Rafsky's definition of his present job: "To formulate a policy for improving neighborhoods and providing such residential construction as will be free from blight generations from now." He works with the planning commission, the housing authority, the redevelopment authority and the department of licenses and inspections. Others? "There's hardly an activity in the city I don't come in contact with." His main problem, Rafsky told a congressional subcommittee last October, is "an inadequate housing supply for all those who are below the high-income brackets." Main intramural problem: "The inability to obtain from the planning commission a comprehensive plan for the entire city—a complete and total statement."

Will the housing coordinator become a fix-

continued on p. 80





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**Smooth, easy-cleaning, decorative—uses for melamine laminate panels are multiplying fast!**

Among the most decorative and durable of all plastic materials are the laminates made by fusing resin-impregnated paper into solid panels under high heat and pressure.

For many years these melamine laminates\* have been a preferred surfacing for counters and work areas, as well as for fine furniture. Now their functional and ornamental qualities are being utilized for wainscoting, wall paneling, toilet partitions, doors, shower stalls, elevator cabs, push and kick plates, store and bank fixtures.

Easy-to-care-for melamine laminates require a minimum of maintenance—never need painting or finishing. The smooth surface washes clean with a damp cloth, and resists scratching, denting, chipping, cracking, burns and stains. It withstands heat up to 275° F. It is unharmed by

alcohol, most acids and alkalis or boiling water.

Building suppliers stock melamine laminates in a wide range of deeptones, pastels, mosaics, marbled effects, wood grains and all-over designs. The panels are available in two thicknesses (1/10 inches and 1/16 inches), in widths from 30 inches to 48 inches, and in lengths up to 16 feet.

These sheets cut neatly with a saw, and cement permanently to smooth plaster walls (cured), gypsum lath, sheathing grade plywood and building blocks. Properly installed, melamine laminates do not swell or warp.

\*Monsanto supplies melamine resins for decorative laminates sold under these trade names: *Consoweld, Corlex, Decarlite, Far-lite, Fiberesin, Lamin-Art, Micarta, Nevamar, Panelyte, Pionite, Plastilite, Railite, Resilyte, Richelain, Textolite.*

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spark for the warm friendly fire that burns everywhere on America's hearthstones!

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*\*15,500,000 people read an average issue of BH&G! One-third of the 123,800,000 people 10 years of age and older in the U.S. read one or more of every 12 issues. That's 44,150,000 people—and over 40% of them are men!*

*during the year...*

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*\*A 12-Months' Study of BH&G Readers, Alfred Politz Research, Inc., 1956*

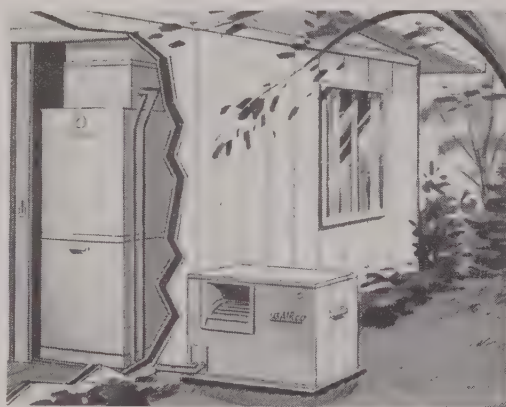


# building in water shortage areas?



## **usAIRco** makes the most complete line of space-saving "air-cooled" residential air conditioners

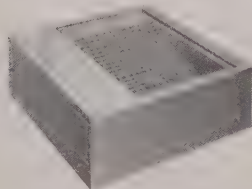
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(if any), **usAIRco** has the proper cooling coil!



V-type cooling coil section for placement on outlet side of lo-boy and hi-boy warm air furnaces.



Counterflow cooling coil section for use below furnace with air discharge at bottom.



Horizontal air-flow cooling coil section fits easily into main duct trunk.



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Year 'round

ture in municipal life? Says Rafsky: "I feel that cities need a much more organized set-up in the field of housing. So they need something akin to a coordinator."

**Baltimore** moved toward coordination last summer by giving Oliver C. Winston, executive director of the city's housing authority for the past eight years, the title of urban renewal coordinator. Winston, who formerly was a regional director for PHA and was president in 1953-54 of the Natl. Assn. of Housing & Redevelopment Officials, calls the coordinator position "a deputy mayor's job." Many Baltimoreans urged creation of the post on the ground that the 26 public and private agencies operating in the city were botching the renewal program. Winston thinks that it is "all to the good" that coordinators are different and attack their jobs differently. He also believes, about renewal in general, that it will be a "full five years" before any city finds a "completely satisfactory way to run this thing."

**Oakland, Calif.** is just beginning to coordinate. Since last September, Fred H. Squires Jr., 38, a former assistant to the mayor, has been \$9,600-a-year coordinator of urban renewal. He attended the University of California, went to work for Mayor Clifford E. Rishell in 1949. So far, Squires has only a secretary, but thinks he will get an assistant and a small staff of inspectors from other departments soon. Squires works closely with the city's Citizens Committee for Urban Renewal, an exceptionally able group headed by Norris Nash, a Kaiser Co. vice president on loan to the city (Kaiser is paying his salary) for a year. Oakland is about to form another unpaid group called the housing advisory and appeals board, which will hear appeals from citizens required to make improvements or changes under the renewal program.

**Dallas** named A. Alexander Bul, 34, Netherlands-born urban planner, as urban rehabilitation coordinator last June. Earlier he was city zoning commissioner and administrative assistant to the city manager. "My job is to see that the committee [the mayor's Citizen Housing Rehabilitation Advisory Committee] and the municipal agencies all go in the same direction," says Bul. Dallas is working on two pilot areas—one blighted, one a transition area.

**Washington, D.C.** has an Army officer in charge of its coordinating efforts. Col. Robert E. Mathe is putting in a three-year assignment as assistant engineer commissioner for urban renewal.

**Milwaukee's** first housing coordinator is Sol Ackerman, 33, former program analyst with the Chicago Land Clearance Commission. Hired in July, he advises the mayor and common council on slum clearance problems and coordinates clearance projects.

A few other cities have part-time officials (Richmond's coordinator is chief of public works), formerly had a coordinator (Chicago Heights had one until its renewal program bogged down), or are getting ready to appoint one. Mayor Robert Wagner of New York has been urged to name a coordinator of middle income housing to help stimulate housing to rent at \$20 and \$30 a room.

NEWS continued on p. 85



## COMMUNITY FACILITIES:

## Builders see metropolitan government as solution to road, school, sewage woes

Home builders have shifted their sights on the community facilities problem. The new target: metropolitan government.

Their reason: an area-wide urban government to deal with the problems of schools, sewage and water systems can eliminate the costly conflict, duplication and confusion of politically fragmented urban areas today. (The typical large metropolitan area is served by 150 separate government agencies.)

### *E pluribus unum*

A metropolitan government would have only one building code instead of dozens. It would have only one planning and zoning board with one set of regulations instead of dozens of boards with as many different ideas and standards for land use, planning and lot and street sizes.

No US city has a modern-style metropolitan government today.\* But across the nation virtually every major metropolitan area is suffering severe urban growing pains. Most are scrambling for some form of regional control to tackle problems that have outrun the ability of existing governments to solve.

These cities have learned that tax paying ability and the need for taxes do not follow political boundaries fixed years ago. Growing residential areas seldom have the broad tax base of industry and commerce to finance

needed community facilities and services.

Sometimes these areas struggle along with inadequate facilities and services. Lately, they often coerce the home builder into providing most or all of the facilities needed for the homes he builds—and sometimes for a lot of still-unbuilt homes as well. Even so, there remains a big gap between services in a new residential area and its older urban neighbors.

### *Ways & means*

Approaches toward metropolitan government vary with the character of the area and the seriousness and complexity of its problems. A few lucky cities, notably in Texas where state laws make it easy, have merely extended their boundaries. Others have city-county consolidation plans. In most areas, such easy solutions are politically impossible. Voters won't have them.

Out of this impasse, metropolitan government arose as a compromise. It has much salve for local pride: towns and villages retain their identity, local officials keep their jobs, citizens keep a local government to cope with local problems. Toronto, Canada, first city in North America to try it, is finding "metro" government to its liking after less than three years' trial.

The nation's top planners, meeting at Michigan State University in East Lansing in May, had this to say on the form of metropolitan government:

"While complete consolidation of all local government is one of the theoretical possibilities, it is neither a likely nor desirable solution except possibly in new and relatively

small or emerging metropolitan communities. Serious consideration should, however, be given to the development of general metropolitan governments with limited functions leaving all other functions to existing local communities."

So far, US metropolitan regions have taken only a halting first step toward metropolitan government: formation of myriad area-wide authorities to handle special jobs—public transit, roads, harbors, parks, water supply. Some have put planning on a regional basis.

From there, a few regions are beginning to inch toward real metropolitan government. Some of the evidence:

► Pittsburgh and Allegheny County's metropolitan study commission has proposed introduction of a charter amendment bill in the Pennsylvania general assembly next year. The group recommended a new county government with control over planning, zoning, building, sewage and garbage, fire and police, tax assessing and collecting, highways, recreation, mass transit and public schools. Opposition—as usual—comes from smaller communities.

► San Francisco's Chamber of Commerce has decided to start a study headed toward metropolitan government. Some of the impetus was supplied by an ex-San Franciscan, Executive Editor Albert L. Furth of *Fortune*, who warned in a talk there that failure to face mounting regional problems could result in chaos and confusion.

He explained: "I am convinced that the bold and imaginative men of San Francisco must reach out to find their opposite numbers across the Bay and up and down the neighboring valleys . . . and they should make common cause to break through the bureaucratic barriers of town and county lines and the provincial jealousies that sometimes are even more formidable."

*continued on p. 88*

## HOW METROPOLITAN GOVERNMENT WORKS:

### Federation of city and suburbs takes the noose from Toronto's neck

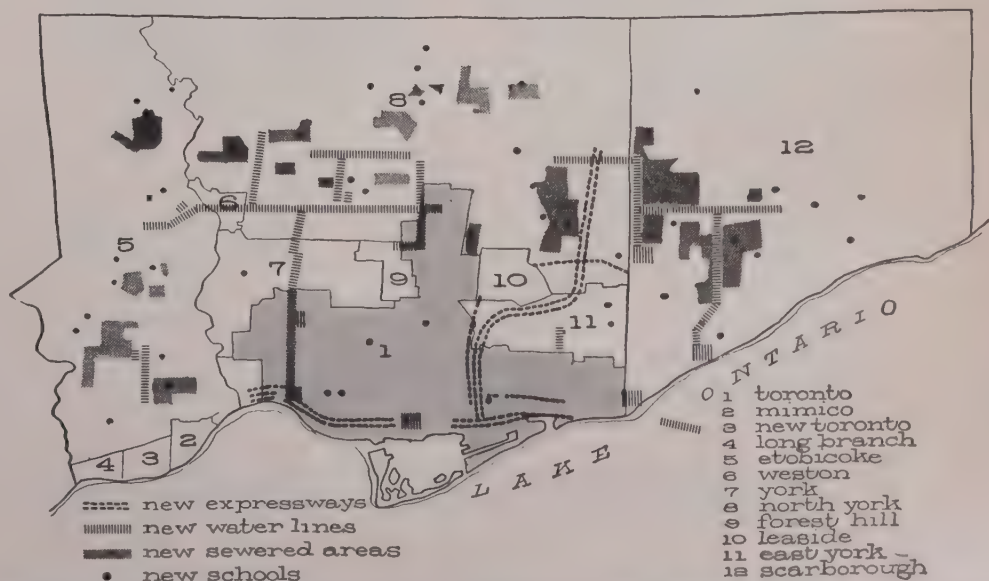
Toronto, Canada, first city in North America to establish metropolitan government, is winning its battle against urban strangulation.

Three years ago Toronto faced problems like those facing many US cities today. Tax-poor suburbs, lacking an adequate industrial to residential assessment ratio, were unable to provide facilities and services for new homes for the area's thousands of new residents. Building was curtailed. The city was slowly choking.

Toronto officials, realizing that the future of the entire area was threatened, proposed amalgamation of all cities into one. The 12 suburbs jealously fought to retain their identity. In 1953 the Ontario legislature ordered—still over the objections of many of the suburbs—a compromise plan of metropolitan federation..

The suburbs retain their identity and certain powers. They handle garbage disposal, public health, sale of electricity, licensing and local regulations. (At first they also controlled police and fire departments but these have since been designated as metropolitan functions.)

*continued on p. 88*



**Major improvements** made in Greater Toronto since metropolitan government took over two and a half years ago are indicated on this map. The shaded area in the center (1) indicates the City of Toronto. Suburban townships are numbered at right, keyed to their locations on the map.





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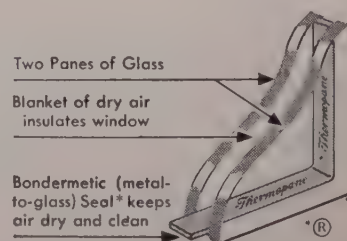
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1. Spread mastic over surface of waterproofed slab.



2. Lay short lengths of 2x4 on 12" centers. Lap joints.



3. Nail Strip Oak Flooring at each screed intersection.



4. Finish in usual manner, or use prefinished flooring.



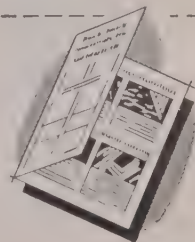
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*Please send a free copy of "How to Install Hardwood Strip Floors over Concrete Slabs."*

Name

Address





## ... metropolitan government gives Greater Toronto new life

continued from p. 85

The metro government took charge of water, sewage disposal, planning and construction of arterial highways, education, transit, tax assessments, parks and all capital outlays. The federated government is headed by a council of 25—one from each of the 12 suburbs, 12 from Toronto and a chairman. The first and only chairman of the council since its creation has been Frederick G. Gardiner, former chairman of Toronto's planning board.

Since met government started functioning in January 1954, it has breathed new life into the suffering city. Toronto is exploding. Housing starts have risen from 9,400 in 1953 (the all-time high was 13,000 starts in 1951) to 16,300 in 1954 and finally to 22,375 in 1955. Extension and enlargement of facilities have opened up vast new areas to development. Items:

- ▶ A complete and adequate water system is well on its way to completion. Capacity of the main water plant will increase from 100 million to 200 million gallons a day.
  - ▶ Capacity of the main sewage disposal plant doubled. Another one is being built.
  - ▶ Work is under way on a lakeshore expressway to carry 100,000 cars a day from the western suburbs to downtown.
  - ▶ Six high schools and 59 elementary schools have been built. Additions have been made to 91 existing schools.
  - ▶ The first Canadian subway has been completed.
  - ▶ A new golf course is open. Land is being acquired for parks.
  - ▶ Assessments throughout the area are being equalized and a master plan for future development will be completed by 1958.
- But the major accomplishment of the past three years—there is wide agreement on this—has been public acceptance of the principle of metropolitan government.

## ... US cities search solutions to problems of rapid growth

continued from p. 85

- ▶ Dayton, O., spurred by a series of articles on community facilities problems in the *Dayton News*—formed a citizens committee to study the problem of overlapping government and recommend solutions.
- ▶ Fifty public officials from New York, New Jersey and Connecticut met in Manhattan at the invitation of Mayor Robert Wagner to discuss the Gordian problems of the New York metropolitan area (22 counties and 550 municipalities). They appointed a six-man committee, with Mayor Wagner as chairman, to study how to mesh their efforts on traffic and transportation, juvenile delinquency, recreation, housing, water supply, air and water pollution, sewerage disposal and long range urban planning.
- ▶ An Illinois legislative commission went to Toronto to study that city's metropolitan government and to see if it is adaptable to the Chicago area. (There are more than 500 governmental units around Chicago.)
- ▶ Milwaukee and Atlanta are attacking the problem by annexation, though Milwaukee's

continued on p. 91



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**I**mproving on an American tradition is no simple task. The men who had the responsibility of planning the 18 story addition to one of America's great hotels—the Muehlebach, faced the task by specifying *only the best*. When it came to wiring devices, they insisted not only on *smart appearance*, but also *dependable operation and long life*. Naturally, they chose Pass & Seymour. Over sixty years of leadership in the wiring device industry have made Pass & Seymour the choice of architects and builders for every type of construction.

In a luxury hotel, every detail is important. Barney L. Allis, president of the Trianon Hotel Co., was able to draw on the experience of people like Architects Neville, Sharp and Simon; Mechanical Engineer William L. Cassell; and Electrical Contractor John D. Hilburn of the Boese-Hilburn Electric Company. To match quality appearance with quality performance, they used Pass & Seymour's switches, outlets and Uniline® wallplates throughout the hotel.

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continued from p. 88

smaller neighbors are opposing the plan bitterly.

► The Nashville Board of Realtors is hopefully pushing a consolidation plan for Nashville and Davidson county, spurred by the highly favorable report on a proposed \$37 million sewer program recommended by the Nashville and county planning boards. The system would serve outlying, as well as city, residential developments.

► Studies which may lead to metropolitan government are underway in Houston, Flint, Mich., Louisville, Portland, Ore., Los Angeles, Cincinnati and Indianapolis.

► Miami, which had been moving toward met government faster than most cities, suffered a setback in court. A home rule charter amendment scheduled to go before the voters in November (statewide approval is needed) was ruled unconstitutional. Proponents hope to get the decision reversed in the state Supreme Court.

Some supporters of met government in Miami have attacked the proposed new charter, also due to go before the voters in November, claiming it is so watered down with concessions to jealous municipalities as to be useless.

► In Pennsylvania, the state legislature rejected a bill to let cities create districts for water and sewage service beyond corporate limits after suburban towns protested that it would mean annexation.

Commented the *Philadelphia Bulletin* sadly: "the furor . . . indicates one thing—that metropolitan areas will continue to run themselves on a piecemeal basis for a very long time to come."

► Michigan State University announced that it will set up an administrative unit to help cities and towns solve their problems, much as the college agricultural extension system helps the farmer.

### **\$50-a-permit park fee voided by Detroit court**

Detroit home builders have won another battle against an antibuilding ordinance adopted to solve community facilities problems.

Last March, an ordinance which banned the use of dry wall construction was ruled invalid in Redford Township (pop. 50,000), on Detroit's western outskirts.

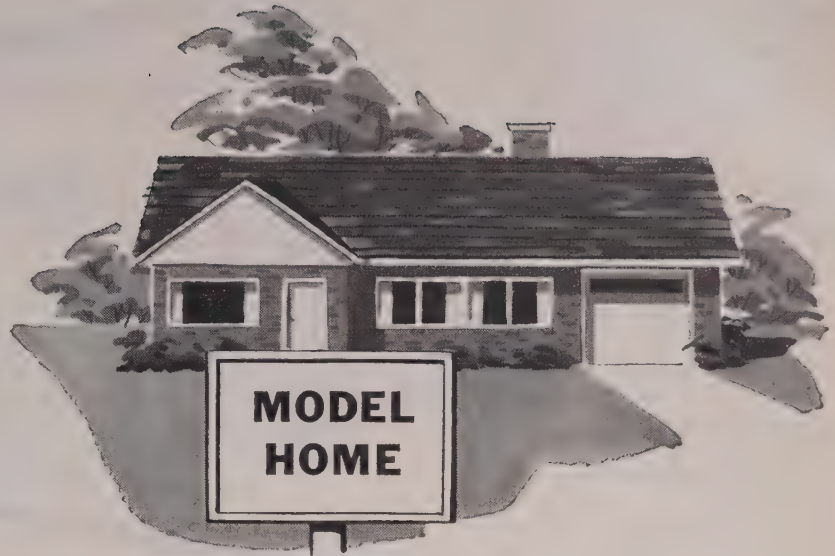
Now, another Redford Township ordinance, requiring home builders to pay a \$50 fee for parks and recreation with each building permit application, has been declared unconstitutional by a Wayne County circuit court.

Township officials had repealed the ordinance on the eve of a suit brought by the Builders Assn. of Metropolitan Detroit on behalf of the Antoine Building Co., a member firm.

Commented association President Rodney M. Lockwood:

"The importance of the decision lies in the ruling that ordinances requiring payment of special fees only by new home builders is discriminatory and that payment of revenue raising taxes cannot be made a condition precedent to issuance of building permits."

NEWS continued on p. 95



Mr. Builder:

## **Will Electric Heat Sell Homes?**

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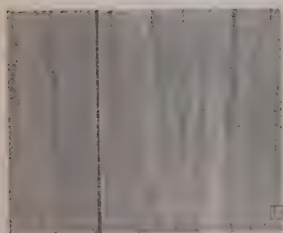
About 53c a foot  
Also available in Savannah Paneling  
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## Average home buyers **BUY** a better-than-average home **FASTER**

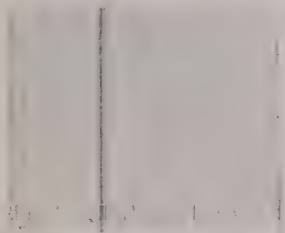
**offer them the dramatic beauty of real wood  
with low cost G-P Prefinished Hardwood Paneling**

Your prospect is actually upgrading himself when he considers buying this house. He wonders if it will be pleasant to live in, and since he probably plans to move into an even better home within five years or so, he wonders if this house will resell easily. The greater value and distinctive appearance of G-P Hardwood Paneling give him quick

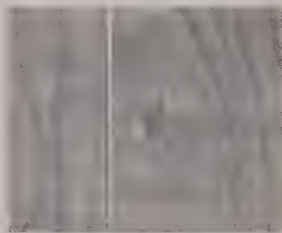
assurance on both questions. Your choice of G-P V-grooved Hardwood Paneling helps him picture a scene of family happiness and good living surrounded by these hospitable rooms. This, plus the knowledge that the enduring quality and beauty of wood will bring the same picture to future owners, is what makes average home buyers buy faster.



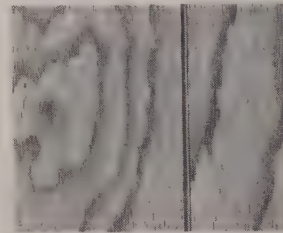
**V-GROOVED CHERRY.** Its subtle charm blends into traditional or contemporary settings bringing a quiet elegance that adds decor to either motif. *About 72c a foot.*



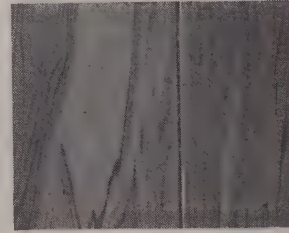
**V-GROOVED BLOND CATIVO.** Most popular in modern homes because of its smooth flowing simplicity. Its light, easy-on-the-eye tone adds apparent spaciousness to small rooms at low cost. *About 47c a ft.*



**V-GROOVED WALNUT.** Classic richness and distinctive grain combine to make walnut popular for both home and office settings. *About 72c a foot.*



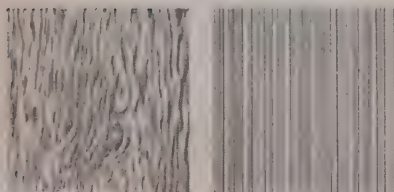
**V-GROOVED HONEYTONE OAK.** Also available in G-P Savannah Paneling Clip System. *Honeytone about 52c a foot. (Clip system about 60c.) Blond Oak about 56c a foot. (Clip system about 65c.)*



**V-GROOVED RED GUM.** Excitingly figured in a deep natural tone that is exotic and pleasing to home-makers and decorators alike. *... About 48c a foot.*

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## PUBLIC HOUSING:

## Slusser, first GOP boss, clamps down on local authorities to save money

Public housing is getting the most thorough face-washing in its 19-year history under PHA Commissioner Charles E. Slusser.

He is the first Republican appointee to head the New Deal-spawned agency. In four years, the former mayor of Akron has:

1. Returned \$885 million to the Treasury by pressuring many of the nation's 733 local housing authorities to sell their tax-exempt bonds to the public and pay back construction loans advanced by PHA.
2. Recovered \$155 million by speeding up liquidation of World War II temporary housing—the ugly rows of barracks-like boxes. In three years, PHA has sold 200,000 units, now has only 48,584 left in the bottom of the barrel.
3. Tightened up contracts with local authorities (which manage some 415,000 federally subsidized units) despite hostility, cries of outrage and some open defiance by disgruntled public housers.

Tighter contracts are aimed at stopping some of the extravagance and fumbling administration Slusser found when he took over PHA in 1953 and went out across the country on a 30,000-mi. inspection trip. Items:

- ▶ The Jackson, Tenn., housing authority, the commissioner found, had contracted to pay almost twice the appraised value for some property. Slusser unearthed a Tennessee case where a local housing authority official had an interest in the site. Tighter contracts now give PHA more control over filing of condemnation cases and acceptance of resulting court awards.
- ▶ In another southern city, a housing authority official who owned a furniture store placed an order with his own firm for equipment for a public housing project. PHA made him return his profit. Now, tighter contracts give PHA review power over local authority budgets.
- ▶ Slusser found local authorities issuing too many costly change-orders while construction was in progress. Such action, he says, usually means "something is wrong." Now, tighter contracts prohibit local authorities from issuing change-orders without specific PHA approval. Moreover, local authorities must use architects to inspect work-in-progress.
- ▶ Joseph F. Kinnan, the executive director of the Bradenton, Fla. housing authority embezzled \$37,000—a whole year's payroll. He could be—and was—prosecuted and convicted, but PHA could not oust the local housing commissioners that let such skulduggery flourish under their noses. Now, tighter contracts let PHA seize any local authority that fails to remedy any "default or breach" within 30 days after Washington demands it.

Slusser uses his seizure power more aggressively than his Democratic predecessors on public housing's throne. PHA recently took over 1,000 units in Galveston, Tex. (July, News). It was the first time PHA had taken over a local authority for alleged mismanagement.

## High cost of land stymies projects; public housers ask more US help

Public housers, confronted by just as tough a land-cost problem as private builders, are asking the government to bail them out.

They are promoting the idea of getting Title I redevelopment land write-downs to defray the stiff cost of buying sites. Now, public housing authorities must pay "fair market value" for the land they buy and take off the tax rolls.

The result is local housing authorities are finding it harder and harder to locate land cheap enough to make projects feasible.

Public housers are urging HHFA and its Urban Renewal Administration to ease other rules. They want to let cities credit their waiver of realty taxes on public housing count as their one-third contribution toward redevelopment projects.

Present rules, they complain, saddle public housing with the cost of tearing down

continued on p. 98

## How public housing's boss views his job, problems

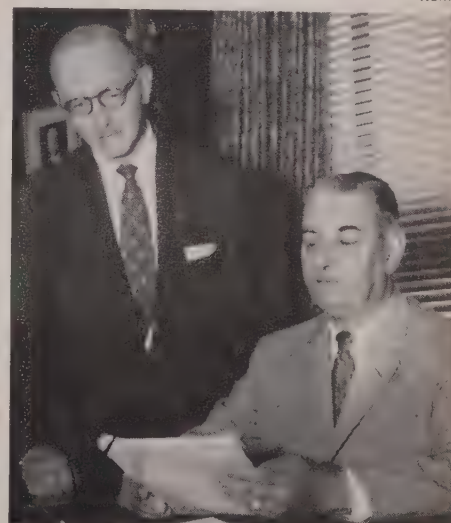
Few people in private housing realize how big a house-cleaning Charles Edward Slusser has given US public housing.

Slusser has kept it quiet deliberately, realizing that any applause from public housing's opponents would make his job that much harder.

The 58-year-old PHA commissioner presides—somewhat remotely—over the biggest housing construction and management empire in US history. Through 733 local authorities, he is responsible for management of some 415,000 units already built. More than 20,000 units are under construction and 55,000 more have an unwelchable pledge of federal aid.

Unlike his immediate and only superior in the government housing hierarchy, HHFA-

Reni



PHA'S SLUSSER (R) AND CURRIE

A realtor and a banker from Akron

ministrator Albert M. Cole, Slusser did not become a convert to public housing on assuming federal office. He supported it and fought for it during his unprecedented five terms as mayor of Akron, Ohio despite his background as a real estate man.

Bob Slusser—Bob is his family nickname—holds few doctrinaire views. He deplores what he calls the "cold war that for some lack of logic must be carried on between advocates of public housing and some members of the real estate fraternity." He argues: "Real estate boards and builder groups would be better off if they would face the fact that a certain amount of public housing is unavoidable. Then they would be in a stronger position to impose proper limits on the program and could exercise more effective influence over selection of the local officials who run it."

Although he was mayor of a strong labor town, Slusser actively supported the presidential candidacy of the late Sen. Robert A. Taft in 1948 despite Taft's warning that this might be political suicide for Slusser. Instead, Slusser, running for re-election, won easily.

The public housing commissioner was born Nov. 20, 1897 on a Portage County, Ohio

continued on p. 99



# What's Behind the Shift to Aluminum Sliding Glass Doors?

For years wood and steel have been the accepted materials for sliding glass doors. Today, aluminum has become, more and more, the preferred metal.

What's behind this change?

- 1. Aluminum combines strength with new manufacturing flexibility.** *Result: mass production economies plus the advantages of k.d. (knock down) design.*
- 2. Aluminum has a lifetime finish.** *Result: no painting is required; no warping or sticking occurs to interfere with door operation.*
- 3. Aluminum is a modern metal of unusual capabilities.** *Result: a structurally sound door which offers easy operation and positive weathersealing.*
- 4. Aluminum is beautiful.** *Result: Mr. and Mrs. Home Buyer find special appeal in the smart, satin-like finish of aluminum sliding glass doors.*

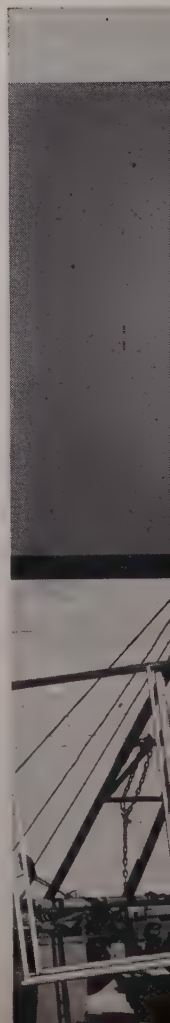
These are a few of the many reasons behind the shift to aluminum sliding glass doors. In the specialized field of quality all-aluminum sliding glass doors, the foremost name is Ador. For complete information write to: Ador Sales, Inc., 2345 West Commonwealth Avenue, Fullerton, California, or see your nearest Ador dealer.

Sliding glass doors are among the home buyers' "most wanted" features. The easy operation and beautiful finish of aluminum doors hold special appeals.



*Ador* America's Foremost

All-Aluminum Sliding Glass Door

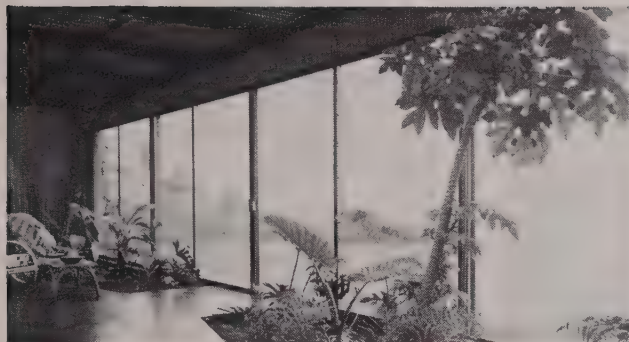




Ador header extrusion.

Ador threshold extrusion.

Ador interlocker extrusion.



Forty feet long and eight feet high is this Ador installation, illustrating the strength and precision character of aluminum doors.

Structurally engineered aluminum sections like these are used in the Ador sliding glass door. Note how aluminum permits the use of special shapes necessary for the strength and flexibility required of sliding glass doors.

## THE CASE FOR ALUMINUM VERSUS STEEL...

### STEEL

Frame of this steel sliding glass door shows damaging corrosion. Paint layers, plus exterior and interior rust affect the operation of steel sliding units.

### ALUMINUM

Ador door frame, after long exposure to salt air, shows beautiful finish completely free of corrosion. Ador's Alumilite finish eliminates both painting and surface maintenance.

### STEEL

Welded steel doors are heavy, cumbersome units. Here truck crane is required to move 16' unit on job site. Installation and handling are more difficult, more costly due to weight factors involved.

### ALUMINUM

16' Ador aluminum door can be carried by one man. Delivered to the job site as k.d. unit, door is easily assembled and installed in 30 to 60 minutes. Economical packaging of k. d. door reduces shipping costs, eliminates damage.





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**LOWER PRICED HOMES**  
with *Benefire*... the  
**COMPLETE FIREPLACE FORM**



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Now you can incorporate your customer's "dream" fireplace even in your moderate priced homes. *Benefire* is the complete fireplace form . . . saves up to a ton of costly masonry on each fireplace . . . builds a perfect fireplace quicker and easier . . . New throat damper really closes tight, without packing . . . New "Ductops" make duct work cheaper than laying solid masonry . . . Let's look at some of the new features that now put an open fireplace within the reach of all your customers.

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TIME AND MONEY SAVING FEATURES?

1. Adjustable Flue Connection . . . where needed, flue connection enlarges to support larger flue tile.
2. Extra Large Smoke Dome . . . gives gradual funneling from throat all the way to the flue.
3. New Tight-Seal Throat Damper . . . seats tightly all around without packing.
4. Exact Draft Control . . . Intermediate settings control excess heat loss, in a simple Ratchet or popular outside "Rotary". Neither relies on short-lived springs or friction.
5. Well Proportioned Opening . . . Depth and height are carefully related to gain broadest view of fire, most radiant heat and fuel capacity.
6. Square-Sides . . . gives larger heating chambers, easier brick lay-up, saves masonry.
7. All-Around Sealing Flange . . . gives quick, permanent leak-seal around hearth as well as front.
8. Air Inlets and Outlets . . . conveniently located, "Ductops" lift to form difficult part of ductwork.
9. Firebox Walls . . . back and side walls angled for greatest heat. Heavy boiler plate . . . double welded for greater than "one-piece" strength.
10. Extra Long Baffles . . . in heating chambers, conduct incoming cool air to heat center at back wall.

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THE COMPLETE FORM FROM HEARTH TO FLUE... *Benefire* is a complete form—all around and right up to the flue. Just set the unit on the hearth, place the flue on the unit, and lay up the masonry.



NEW SQUARE FORM . . . Square sides on the new *Benefire* eliminates slow, troublesome diagonal courses. Incidentally the bigger air chambers of the new *Benefire* occupy more space, save masonry in addition to giving larger heating capacity. The average size now "displaces" 116 bricks—half a ton of masonry.



NEW "DUCTOPS" . . . Here is a real time saver. Just bend up the "knock-outs" to the required angle and you have a form for the troublesome part of the duct work. Now with "Ductops" it's actually faster and cheaper to build ducts than to lay solid masonry. If you run the outlets straight up and have the grilles near the ceiling (where they look and work best) you can save up to another half-ton of masonry!



slums. Tearing down slums was the social goal that sold public housing to the nation in the Depression. Now that public housing is established, many of the officials who operate it want that tie-up rescinded.

Item: the National Capital Housing Authority has told the District of Columbia government it is just about licked on acquiring sites in Washington.

Item: PHA recently warned the Paterson, N.J. housing authority that eight acres it proposed to buy in a redevelopment area would cost too much. PHA figured the \$1.3 million price tag would have made the land cost \$4,000 a unit.

Site selection bumps up  
against race segregation

Racial segregation is posing an increasingly tougher problem for public housing.

Even in so-called liberal northern cities, proposals to plant a public housing project in predominantly white neighborhoods often touch off stormy protests. The real reason for objection often masquerades behind a cloud of secondary complaints. The real reason is too many people still do not want Negroes in their neighborhoods. The law says public housing must be color blind. Cases in point:

► The Philadelphia Housing Authority planned to build 2,850 units on 21 scattered sites—the size of the projects to range from 20 to 200 units. Public reaction in several areas was outrage. One of the principal reasons: the seldom-voiced fear that Negroes would be assigned units in white neighborhoods.

The outcome: the city council finally approved a 2,500 unit program on 14 sites. All sites which had stirred controversy were eliminated in the revision. The authority barely met PHA's deadline for submissions.

► While Philadelphia had to scurry to find sites to qualify for an allocation, Washington's National Capital Housing Authority—faced with the same situation—was saved by PHA. For the first time, PHA signed a contract without first getting a list of the sites. The Washington authority will have a year to find sites for 1,500 low-rent units for families displaced by urban renewal programs.

► Home owners in Columbus, Miss., attacked a plan for a 380-unit project, claiming that it was merely the first step in a government effort to open the door to integration.

► In Chicago, where the question came up five years ago, it came up again, though not in a public housing project. Residents of the northwest section fought a city redevelopment project because the land was to be resold to a private individual and residents feared he would build homes for Negroes.

The basic reason for the problem is plain: there is not enough land within existing Negro areas to accommodate all Negro families displaced by slum clearance. Housing authorities must either encroach on neighboring white areas or ignore the ghetto line and put new units wherever they can find vacant land. Either way, they run into neighborhood opposition because so many whites still object to sharing their living space with Negroes.

Recently PHA began to encourage local housing authorities to set up smaller projects,



acquiring smaller sites and so eliminating the need to get the superblock sites which PHA has promoted for years.

Explains regional PHA Director Herman D. Hillman of New York: "Where a given number of units can be scattered through a neighborhood which will be improved through urban renewal, code enforcement or other means, it may be possible to salvage existing values and arrest deterioration." It is becoming increasingly evident that creation of excessively large developments is hampered by the scarcity of suitable sites. Furthermore it is becoming increasingly apparent that public housing developments should spread their benefits over as large a neighborhood as possible."

It is becoming increasingly apparent also, however, that this "spread of benefits" is meeting considerable resistance in the neighborhoods affected.

### 'Love babies' will bring ouster, project boss warns

Single mothers must stop having "love babies" or get out of public housing in Cincinnati.

This local ruling followed protests from clergy, social workers, and other tenants. Reports Housing Authority Director Harry L. Reece: "Some of the women are actually amazed when told they can't continue having babies." He says he does not know how many illegitimate children live in his 4,345 public housing units.

The Cincinnati *Independent*, Negro weekly, says it had been contacted by many "irate tenants who contend the new policy is an invasion of their rights, [but] others think the new policy is a good thing. They say single women have been known to have a succession of night visitors, frequent brawls and other irregularities without regard for their children."

Reece will not oust the love babies already in the subsidized housing. But unwed mothers were asked to sign statements that they understand that if another child is conceived after April 1, they must move within 45 days after it is born.

### PHA expected to fall short of 45,000 units it could build

The Public Housing Authority expected to fall nearly 5,000 units short of getting under contract the 45,000 units authorized by Congress as the July 31 deadline approached.

In mid-July, PHA had signed contracts for 19,920 units. Officials said that they would double that figure before the '56 fiscal year authorization ended.

Among this year's projects are several tiny ones on scattered sites. While managing these projects is harder, PHA Commissioner Slusser notes that if the government ever decides to liquidate public housing the small projects will be the easiest to sell.

Most of the 1956 units have been allocated 1) to cities and small agricultural towns in the South and 2) to the big industrial cities of East and Midwest.

The Atlanta office, handling allocation for most southern states except the middle south area around Washington, has 102 projects underway, taking in 6,765 units. These range

*continued on p. 103*

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in size from four units in towns like Haleyville and Winfield, Ala. to a high of 500 in Birmingham. Only 22 of the 102 projects involve more than 100 units.

These allocations pale when placed along side those of New York with its 8,000 units. Other industrial centers: Chicago, 3,250, Philadelphia 2,500 and Pittsburgh, 1,000.

Significantly there were 18 states in New England, the Great Plains, mountain states and Far West which had no new public housing at all. Only 10 states west of the Mississippi had allocations among those projects approved and under contract in mid-July.

Why so many southern states with public housing? The answer is mostly political. Public housing needs the support of southern Congressmen. Without this support, it would probably be rejected in toto.

## ... Slusser, PHA boss, brought top aide with him from Akron

*continued from p. 95*

farm outside Akron. He grew up there and in Bloomington, Ill. where he earned pocket money by driving a horse-drawn delivery wagon for Grocer Frank Nierstheimer. (Some 40 years later, he had an unexpected reunion with his old boss. As PHA commissioner, Slusser dedicated a public housing project in Bloomington. He found the former grocer on the platform with him as chairman of the local housing authority.)

After serving overseas during World War I, Slusser went to work for Firestone Tire & Rubber Co. In 1930, he quit as head of the company's construction and maintenance division to start his real estate and insurance business in Akron (it is now run by his two sons and brother-in-law). He was elected to the city council and board of education, then became mayor in 1944.

When he decided what public housing needed was closer supervision from the top, Slusser turned to Akron for the man to do it. John Dean Currie, now 48, who had been his director of finance while Slusser was mayor, became deputy PHA commissioner. Currie is a former Akron banker.

## CANADA:

# Tight mortgage market brings protest from builders

Canada's home building industry is kicking up a fuss over tight mortgage money, but up to mid-July the government was standing pat.

Amid rising demand for loans of all kinds, interest rates are climbing and money for 5½% National Housing Act mortgages is growing scarcer. In May, the Bank of Canada raised the bank rate (interest of loans to chartered banks) to a record 3%—on top of three increases in the previous eight months.

Worried builders, campaigning in concert for relief, deluged politicians with wires crying: "The government's tight money policy is strangling NHA and throwing builders into idleness."

The result: alarmist newspaper headlines and a couple of heated sessions in Parliament. Public Works Minister Robert Winters, the government's housing spokesman, replied coolly: "Government-guaranteed loans are not available as a right to everyone to ask for

## PREFABRICATION:

# Shipments drop 22% from last year but producers expect 2d half recovery

The mortgage pinch is hitting the prefabbers hard. The industry has given up hope of getting 10% of the new housing market this year. It will settle for 7%, just what it got in 1955.

This mid-year picture is based on a HOUSE & HOME survey of most of the bigger-volume prefabrication firms.

Instead of 120,000 units the industry now foresees output this year of 75,000 to 80,000 units. (Last year's 7% of starts was 93,000 units.)

**Prefab shipments have actually fallen off 6.5% more than private housing starts.**

Shipments for the first five months of 1956 were 24,951—22.5% under the 32,175 shipped in the same five months of last year. Prefabbers feel they have been hit harder by the tight mortgage market than have conventional builders. Reason: a larger part of prefab business is FHA- and VA-financed.

**Bright spots offset prefab problems, however.**

Prefabbers are shipping more large homes. Prices are up 3 to 5%. So dollar volume will drop much less than unit production this year.

President James R. Price of National Homes says the industry seems to be making sales inroads in areas where it has been weak—though the Midwest is still the prime market.

National Homes—which accounts for one-third of the prefab market—shipped 7,752 units the first half of this year compared to 9,659 in the first half of '55—a drop of 19%. But Price predicts a much better second half. So do other prefabbers.

**First half shipments equal to or even higher than last year's were reported by a few prefabbers.**

Scholz Homes says shipments are up 12% with the biggest gains in the East. Richmond Homes reports shipments up 8%. Harnischfeger Homes announced that dollar volume is up from '55 but shipments are "below expectations." Admiral Homes reported shipments equal to '55. Lumber Fabricators reported shipments off 10% but added that prefab sales are improving greatly in the southeast. American Homes reported shipments down but expected large projects to boost the rate during the second half of '56.

## Home improvement loan limits are boosted

The Canadian government has just adopted two important amendments to the National Housing Act—both involving existing houses.

Most important to builders is a big boost in the limits on home improvement loans (similar to FHA's Title I repair loans)—from \$2,500 to \$4,000 and from five years amortization to ten.

The new legislation ends what were known as "home extension" loans (for creation of additional flats within existing houses). This kind of work can now be done under the home improvement section with the same \$4,000 ceiling (it was \$3,750).

Canadian home improvement loans carry the same 5½% interest rate as NHA loans for new houses.

NEWS continued on p. 106



Use window beauty  
to spark sales!





# Andersen Windowalls

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*A charming view near Freeport, Ill., enhanced by the natural wood beauty of Andersen Gliding Windows. C. Edward Ware, A.I.A., architect.*

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See your lumber and millwork dealer or Sweet's Files for more data on Andersen WINDOWALLS, or write Andersen. WINDOWALLS are sold throughout the country, including the Pacific Coast.

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## PEOPLE: FHA names Sanitary Engineer James R. Simpson to direct new \$300,000-a-year test program

James R. Simpson, 45, FHA's chief sanitary engineer since 1943, will direct FHA's \$300,000-a-year technical testing program.

Commissioner **Norman P. Mason** said he was "borrowing" one of his own staff men for the job in order to get it under way as fast as possible. The program will be under the overall direction of **Neil A. Connor**, head of FHA's architectural standards division.

Simpson, a quiet mustache-wearing civil engineer, is recognized as one of the top men in the US on septic tank and sewage disposal problems. He served with the US Public Health Service before joining FHA. He will work with the housing industry and other government agencies in testing and evaluating new products and methods used in home building.

Connor says the new program will have three specific missions: 1) to encourage research by the building industry itself, 2) to pay for research which can't be done by industry and 3) to set up a mechanism to check FHA insured houses five, 10 or 20 years after completion to determine how they have stood up.

Simpson's first job will be to meet with industry associations and get advisory groups established. First of these meetings was held in mid-July with the **Building Research Advisory Board**. BRAB, led by Chairman **Harold D. Hauf**, reviewed possibilities for studies in moisture, heating and insulation, site planning, construction, structure, water supply and sewage disposal. The committee is to give FHA a report on each field this month suggesting what needs to be investigated more and how it should be done.

Connor emphasized that FHA will do no research unrelated to its operations. All its studies will aim at confirming or changing MPRs or other regulations to keep abreast of advances in housing technology. FHA will not take on any project which industry can handle and pay for itself.

### Haverstick opens new motel on Toledo-Detroit expressway

Like some of his predecessors, NAHB President **Joseph B. Haverstick** is not building many homes during his year in office, but he has found time to go into the motel business.

Haverstick has just opened a 64-unit motel and restaurant 10 mi. southeast of Toledo on the Toledo-Detroit expressway. It is a Holiday Inn Motel, one of the franchised operations of the Holiday Inn chain started in 1944 by two other home builders, **Wallace E. Johnson** and **Kemmons Wilson** of Memphis.

The Haverstick motel, built according to the Holiday Inn plans of Architect **Ned Cole** of Austin, Tex., includes a swimming pool

for guests and banquet rooms adjoining the restaurant. Total investment is about \$600,000.

The Holiday Inn chain now extends from coast to coast and takes in 61 motels. Johnson and Wilson own only three, franchise the rest. They provide national advertising, Ned Cole's plans and consultation to franchise buyers.

While Haverstick is concentrating on the motel this year, he is developing a 48-acre tract near his hometown of Dayton, has five models under construction in the \$25,000 to \$30,000 bracket. With from 110 to 120 lots, Haverstick plans to resume full-scale home building in the spring, when his term as NAHB headman ends.

### HHFA racial relations aide quits, charges discrimination

**Mrs. Corienne R. Morrow**, racial relations aide in HHFA, quit her job less than a month after being reinstated by the Civil Service Commission. Mrs. Morrow, a Negro, was fired a year ago along with her boss, **Dr. Frank Horne**, now executive director of New York's Committee on Intergroup Relations. The Civil Service Commission at first ordered her reinstated, but to a lower paid job. She appealed and in June finally won her case.

In a parting blast at HHFA Administrator **Albert M. Cole**, she wrote in her resignation that HHFA "stands firmly as the last bastion of governmentally sanctioned racism in the United States."

### Local home builder executive elected mayor of Duluth

**Eugene R. (for Raymond) Lambert**, 40, popular executive secretary of the **Duluth (Minn.) Home Builders Assn.** has proved his popularity at the polls. Duluth voters have just elected him mayor, to head a new mayor-council type city government approved in a spring referendum.

Lambert is resigning his home builder job and other posts as manager of the Builders' Exchange and executive secretary of the AGC chapter, the Roofers and Sheet Metal Contractors Assn., the Master Plumbers Assn. and the Building Employers Council.

Lambert defeated incumbent Mayor **George D. Johnson**, former president of the CIO clerical union local at Duluth's American Steel & Wire division of US Steel Corp. Labor strategists tried to make the election a fight between management and labor, the Republican and Democratic-Farmer-Labor parties, and the east and west sections of Duluth. Despite AFL-CIO endorsement of Johnson, Lambert steered clear of these issues and campaigned on the



LAMBERT

KDAL-TV

basis 1) of his personal fitness for the job and 2) a new system of government deserved a new team to run it.

One of his first acts as mayor was to name **H. G. Bowes**, sales manager for a building specialties firm, as an administrative assistant (to serve much like a city manager).

### R. G. Langenwalter resigns job with Wichita Home Builders Assn.

**Robert G. Langenwalter**, 30, resigned as executive officer of the **Wichita Assn. of Home builders** to become president of Industrial Relations, Inc. in Wichita.

In nearly three years, Langenwalter had helped build the Wichita Chapter to become the sixth largest NAHB affiliate. The Wichita Parade of Homes which Langenwalter directed has been recognized as one of the best.

Langenwalter will not cut ties with builders. His firm will handle promotion and public relations for the Wichita Home Builders and he will continue to manage the Parade of Homes. His successor as executive officer is **Milton Armstrong**, his former assistant.



Parklane Studio

LANGENWALTER

### Tom Coogan gets charter for federal S&L in Florida

Former NAHB President **Tom Coogan**, who branched out into the mortgage banking business six years ago, has gone into the savings and loan business.

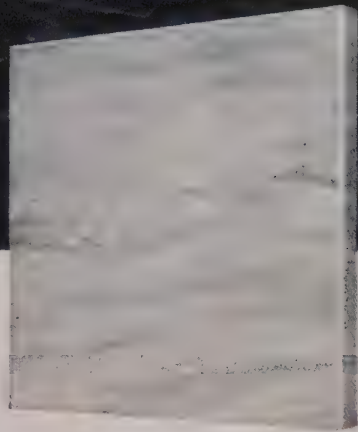
He and his son-in-law, **Jack Beatty**, president of the NAHB chapter in Miami, have won approval by the Federal Home Loan Bank Board to organize an S&L in Hialeah, just outside Miami. Beatty will be president. The new institution will start with capitalization of \$500,000.

**Herman F. Lehman**, general sales manager of **Frigidaire** division of **General Motors** for four years, has been named general manager of Frigidaire. He succeeds **Mason M. Roberts**, vice president and head of the division since 1948. He is retiring.

**DIED:** **James West**, 47, a founder, former president and director of the Houston Home Builders Assn., June 11 in Houston; **John Meador King**, 63, Washington, D.C. builder and developer, June 20 in Georgetown, D.C.; **Laurence P. Keith**, 68, former manager of National Lumber Manufacturers Assn. Chicago office, June 21 in London; Architect **Lafayette Anthony Goldstone**, 80, pioneer in the design of cooperative and luxury apartment houses, June 22 in New York City; **Jackson S. Hutto**, 51, managing director of the Savings Banks Assn. of New York State and former New York State superintendent of banks, June 24 in Scarsdale, N.Y.; **Mark W. Woods**, 86, real estate broker and developer of large segments of Lincoln, June 29 in Lincoln, Neb.

NEWS continued on p. 108





Markwa Marble wall and floor tiles, one-half inch thick, available in three sizes (8" x 8", 8" x 12", 12" x 12") in 18 colors. Set with cement or mastic, as with ordinary tile.



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**CROSSETT ROYAL PINE FLOORS**  
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If you choose, clear varnish can preserve the exquisite straw blondness of Crossett Royal Pine Floors to blend with smart contemporary furnishings or set off the mellow richness of prized antiques.

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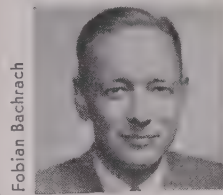
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## OPINIONS:

*These intellects shed the following light on matters of moment to housing:*



Fobian Bachrach

**Dr. E. Sherman Adams**, deputy manager of American Bankers Assn.:

"A new species has emerged: the housingite. His credo consists of two simple propositions:  
 ▶ That housing should always be stimulated more no matter what, and  
 ▶ That those who disagree are anti-social.

"Housingites are not concerned about economic consequences. They do not even seem to be much interested in what happens to housing costs. The stimulation of housing in recent years has clearly contributed to the 28% rise in construction costs since 1947-49. This means that homeowners have been forced to pay more than they otherwise would have paid to acquire or to modernize their homes. They have received less housing, rather than more, for their money."



**NAHB President Joseph Haverstick**, replying to similar views of the Life Insurance Assn.:

"The basic philosophy [of such investors] . . . is simply that an economy of scarcity is best—scarcity in flow of mortgage funds (and consequent higher yields to investors); scarcity in home building volume; and scant progress toward meeting the legitimate housing needs of the American people."

Harmon



**Anthony S. Zummo**, president, Long Island Home Builders Institute

"The price structure is perhaps the most serious factor with which we must contend . . . if sales volume is to be maintained. Much of the increase in builders' costs has been caused by steadily rising labor rates. Labor should take warning. If Labor prices builders out of the market, Labor will eventually price itself out of a livelihood."



**Dr. Harold F. Clark**, professor of education and economics, Columbia University, in talk at Tuscaloosa, Ala.:

"Your architecture is suited for Hudson Bay. It came from England—about the same latitude as Northern Canada—and from Virginia filtered through the rest of the South. You need houses with every room open on three sides. Your architects will tell you it can't be done. But I tried asking third grade children to sketch houses with all rooms exposed on three sides and they did it. Nobody had ever told them it couldn't be done."

for **BUILDERS AT WORK**, see p. 111



## Builders offer to take over moving chores for buyers

For \$56, two Dayton builders will:

1. Have your furniture moved to your new home.
2. Have a baby sitter service watch and feed the children on moving day.
3. Give the parents tickets to the theater.
4. Have a caterer's hot dinner served and waiting for them.

In two and a half months, 62 buyers of

their three-bedroom, two-bath, \$12,950 houses have taken up Builders **Don** and **Charles Huber** on this offer. That is 75% of their customers.

## Alex Simms quits building, goes into land development

Veteran builder (30 years) **W. Alexander Simms** of Dayton, Ohio, is leaving home building for the less frenetic land-developing end of the industry.

After a recent, slight heart attack, Simms decided to "let the younger guys fight it out with FHA," turned over 150 sites in his Eastview subdivision to **C. W. Sharp & Sons**, which will retain the Simms staff and house design. Another 100 lots will be developed by three young builders, **William Siebenthaler**, **John Burneson**, and **Robert Hathaway** (former executive officer of the Dayton home builders chapter). Simms has promised guidance and some financial back-

*continued on p. 113*



## 90,000 people line up to see Japanese-flavored model at Los Angeles home show

The Japanese flavor, which is beginning to pervade house design on the West Coast, has cropped up in a home-show house.

More than 90,000 spectators stood in line at the **Los Angeles Home Show** to file through this \$30,000 plywood and glass "Signature House" designed by tract-wise Architects **Palmer & Krisel** and built by **Midwood Construction Co.** (**Jerry Snyder** and **Max Levine**).

The styling—more advanced than models displayed this year at most other home shows

—points up two lessons:

1. Builders often pick a more contemporary house for such exhibits than they are likely to build in quantity for the area involved.

2. Because such displays have an educational impact on the house-buying public, designs in this year's home shows can become the style of mass-produced homes next year—or the year after.

The light and airy Signature House is topped by a butterfly roof of plywood panels

supported by a 40' laminated beam. Bedrooms and living areas open onto private patios and the children's wing and master bedrooms are on opposite sides of the house. In the children's patio is a steel pipe abacus, strung with giant wooden beads and strong enough to double as a Jungle-Gym.

Wide interest in the house have led Palmer & Krisel to begin revising the plan slightly to adapt the house to builder-production. In production, they hope cost will drop to \$20,000 including appliances but not the lot.



ABACUS, STRONG ENOUGH FOR JUNGLE GYM, BRIGHTENS PATIO



Photos: Julius Shulman

WALNUT STORAGE WALL DIVIDES FOYER (L) AND KITCHEN



# NEW exclusive fabrow ONE piece Neoprene insulated ventilating sash brings TRIPLE weather protection!

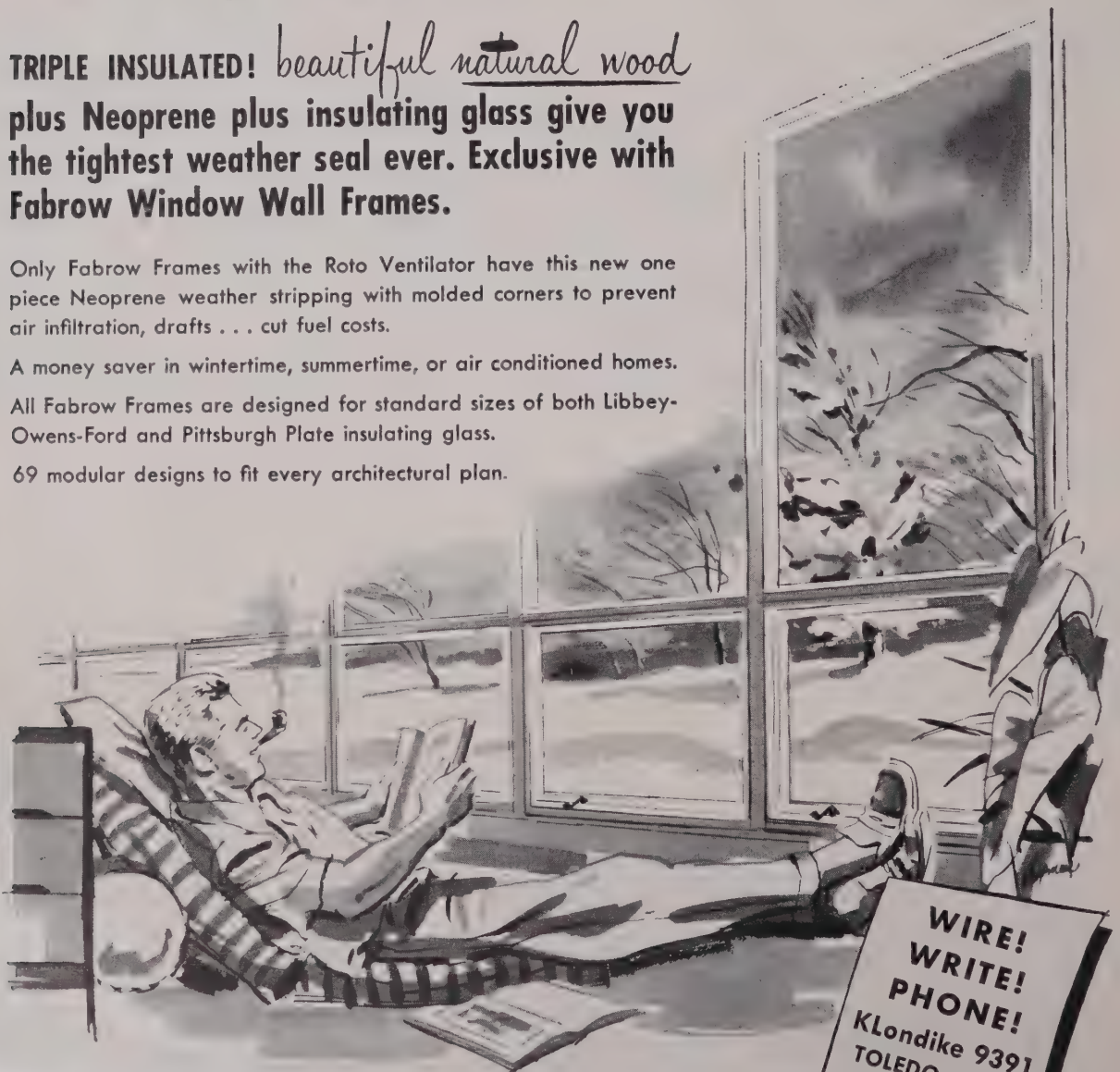
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plus Neoprene plus insulating glass give you  
the tightest weather seal ever. Exclusive with  
Fabrow Window Wall Frames.

Only Fabrow Frames with the Roto Ventilator have this new one  
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air infiltration, drafts . . . cut fuel costs.

A money saver in wintertime, summertime, or air conditioned homes.

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69 modular designs to fit every architectural plan.



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ing to the trio. As his "take it easy" project, Simms is starting platting of a 900-lot residential area and 150-acre industrial plot—land he had bought for future home building. House sites will be sold to individual builders for houses in the \$18,000-\$30,000 range. Simms expects the three newcomers to play a large role in the development, after warming up on the 100 Eastview lots.

Simms is making one concession to the ill-health that persuaded him to give up home building: a 6-7 year timetable for his new venture.

## Sequel: Russians at last say they'll close deal for house

It looks as if Builder **Andy Oddstad** has finally sold his house—the one that last fall's Russian-builder delegation bought—verbally—when they were inspecting an Oddstad housing project at San Bruno, Calif. (Dec. '55, News).

Though Buyer **I. K. Kozuilia**, minister of urban and rural construction, announced the purchase with an ostentatious show of publicity, for months Oddstad heard no more. A long correspondence with Amtorg, the Red trading agency brought no down payment, no contract, no sales agreement.

But bad publicity succeeded where Oddstad's good intentions failed. CBS-TV newsmen **Eric Sevareid** chided the Russians for backing out during one of his nationwide telecasts. Next day, Amtorg wired Oddstad, asked to close the deal at once.

## Materials' exhibit halls begin to spread from coast to coast

Construction of building materials exhibit halls and home planning centers is beginning to become a nationwide trend.

Baltimore, Miami and two areas in the New York City suburbs are the latest to get display halls. Plans are afoot for more elsewhere.

Built-in-Age, a 27,500 sq. ft. building to cost \$1 million, is under construction in **Mountainside, N. J.**, 28 mi. northwest of New York.

It will be open to "home buyers, builders, architects, interior decorators, contractors and do-it-yourself fans," Owners **Charles S. Cohan** and **Ralph Brass** have announced.

In addition to exhibits of building materials and furnishings, the hall will have a reference library and drafting tables.

In **Hempstead, L.I.**, a four-story display and information center with 30,000 sq. ft. of floor space is under construction. Architect: **M. Martin Elkind, Norman M. Obedin & Associates**, the builder and owner, hope it will become a counterpart of the architects display center at 101 Park Ave., Manhattan.

In **Miami**, work is underway on a new 100,000 sq. ft. architects' bureau which is just one small part of a \$10 million hotel-office building project downtown.

The building is scheduled for completion early next year. Its owners, **Albert and Walter Jacobs & Associates**, refer to it as "a world's fair of the building and engineering trades." It includes a 301-room hotel and a 14-story office building. Local archi-

tectural and building trade associations are expected to move their offices there.

**Cheasapeake & Potomac Telephone Co.** has just opened a three-room home planning center on the main floor of its headquarters in downtown **Baltimore**. It includes a reference library, model kitchen and displays of models of five award-winning homes in a design



RETIREMENT COUPLES FROM TWO STATES TRAVELED MILES TO SEE THIS \$8,500 HOUSE

## Architect, builder collaborate to produce small house that looks big, cost only \$10 a sq. ft.

One problem of taking modern design into new areas is that workmen, unfamiliar with its construction details, often work so slowly while they are learning that the house costs more than it should.

Collaboration between a Louisville, Ky. architect and builder has just produced an inexpensive but graceful contemporary home that sidestepped this pitfall.

To keep labor costs down, Architect **C. Jack Garner** retained almost all the standard construction details (e.g., fascia, soffits, rafters) that Builder **Dan Conner's** carpenters were already using in his conventional homes in the same tract. Similarly, Garner stuck to readily available stock parts for windows and other fittings.

The result: Garner now lives in an 864 sq. ft. (plus carport) house that cost only \$8,500 on a \$1,200 lot—or \$10 a sq. ft. That compares with \$11 a sq. ft. for Conner's conventional 1,100 sq. ft., \$13,500 houses next door. Garner's house cost less, he says, mostly because he substituted slab on grade for a basement, saving perhaps \$1,000.

Although Garner's house has only two bedrooms, it looks little smaller than the three-bedroom homes around it because, among other things, he carried the roof line across the 14' carport and used 4' overhangs on the roof itself. The overhangs also eliminated gutters and downspouts. Some other corner cutters:

- ▶ Instead of baseboards, stock window trim 1½" high was used on all walls.
- ▶ Wooden window sills were dropped in favor of cement plaster sills.
- ▶ Overhead central heat ducts minimized duct work. (FHA permits such systems in a warm climate, but this heating setup is not recommended for slab houses in the North and some regional FHA offices have banned it.)
- ▶ Plumbing was arranged back-to-back, with pipes exposed in a utility closet for easy repairs.
- ▶ Vinyl-asbestos tile replaced wood flooring—largely, says Garner, because he figured

contest sponsored by the phone company in cooperation with the Baltimore AIA chapter.

In **San Francisco**, **Victor di Suvero** announced plans to move his **Construction Materials Center** (Aug. '55, Builders at Work) into bigger quarters. He hopes to open branches in **Los Angeles** and elsewhere shortly.

continued on p. 115

Courier-Journal

his two young sons would scuff it less

"This is a house based on optical illusions," says Garner. "I wanted a spacious feeling. So I made the living room front to back rather than across the front so there is a 24' view the minute you come in the front door." Carrying out the open planning further, Garner used four floor-to-ceiling steel pipes, spaced 6" apart, to provide visual separation between living area and kitchen while retaining the spaciousness of the two rooms combined. Garner's two sons like the pipes as a jungle gym.

Some items Garner wanted had to be sacrificed because carpenters were not used to building them. One was a pitched ceiling which would have required post and beam construction.

Financing is conventional (Garner took a 5½% \$6,500 mortgage, though he was offered more).

Builder Conner is pondering whether to build a group of them for sale. When a local newspaper ran a story about the house, inquiries poured in from all over Indiana and Kentucky—half of them from elderly folk looking for an easy-to-keep retirement house. Says Garner: "If we had had a dozen such houses, instead of just one, we could have sold them all in one Sunday afternoon."

Garner says the only item in the house that will not pass FHA requirements is outdoor storage in the carport—because it has no lock.





# Yes, '56 is the year to fix



MORE SIDEWALLS... MORE ROOFS... MORE INTERIORS

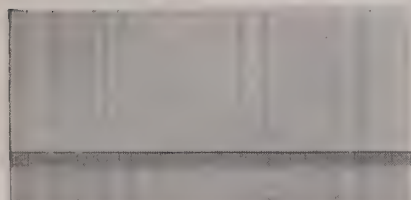
...count on Flintkote Building Materials to help build up your home improvement profits!



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...with FLINTKOTE INSULATING SIDING**

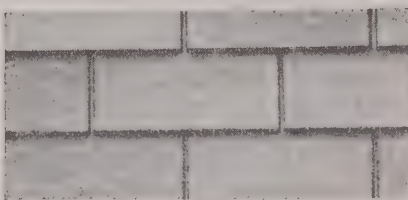
It's no secret that home-owners the country over want their homes to have new beauty and economy. What a profit opportunity for *you*... for thanks to a special Flintkote back coating, you can offer *your* customers colorful insulating siding that has *dimensional stability* in all kinds of weather.



#### HOME IMPROVEMENT SUGGESTION NO. 2

**Make Old Homes Look Like New  
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You have the edge over competition when you use Flintkote Asbestos-Cement Siding! For only in this Flintkote siding can you offer the protection of Flintkote's new "Wrap-Around" Dura-Shield\* Coating... a coating with a face shield of silicone for added protection against moisture and staining.



#### HOME IMPROVEMENT SUGGESTION NO. 3

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Here's a *big* source of extra profits! Make use of the smart decorator colors and lovely modern textures to cheer up drab surroundings... reduce noise... add insulation.



#### HOME IMPROVEMENT SUGGESTION NO. 5

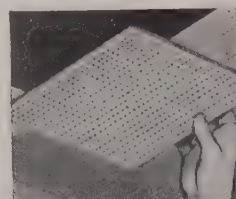
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# What builders are doing to spur sales

*As houses get harder to sell, builders across the nation are finding some new tricks, reviving more old ones to keep buyers coming. On this page are some of the latest developments:*

## Builders become investors to keep down payments low

As VA no-down commitments vanish from the market, second mortgages and other small-down-payment plans are making a comeback.

Builders who use them say they snare sales that could not be made any other way.

Near Miami, Builder **Sam Rizzo**, formerly of White Plains, N.Y., sold 128 houses in two weeks by a deal which leaves buyers with only \$275 closing costs (which includes title policy and insurance for one year).

**Miami Beach Federal Savings & Loan** offers Rizzo's customers a 6%, 20-year conventional loan for 70%-75% of the price (\$9,660 to \$9,995). Rizzo grants a second mortgage for the balance on the same terms. The junior lien can be prepaid without penalty. About 10% of the buyers do not need full financing, pay up to \$1,000 down.

Rizzo says his terms have a big pull since most second mortgages in the Miami area are written for periods as short as two years, at interest up to 10%.

Rizzo offers four different floor plans on the same size foundation, varying from two bedroom, one bath, houses, to three bedroom, two bath models.

Rizzo's scheme requires a lot of capital. If his down payments average \$500, and if the first mortgage is for 75% of value, his 128 sales could have left him with over \$250,000 invested in second mortgages. Rizzo does not mind. "It's just like an annuity," he says.

Outside Los Angeles, **Pardee-Phillips Construction Co.** is selling \$19,500 houses to non-vets for closing costs of \$395, on a contract (at 6.6% interest) for the full sales price.

Families of good credit and high incomes (over \$600 per mo.) can get a 5 or 10 year contract to buy, paying \$150 (or more) per mo. In its own name, Pardee-Phillips takes out a \$13,500 first mortgage on the property, leaving the firm with an investment of \$6,000. Each buyer's payments are calculated to pay interest, taxes and insurance and to build up a small equity (estimated at slightly less than \$1,500) during the five years.

This equity, plus anticipated appreciation in the property value, is expected to give each buyer enough stake in his house to refinance it with a new mortgage when the contract expires—taking Pardee-Phillips out completely.

Advantages for Pardee-Phillips:

- ▶ A house sold in a tough market.
- ▶ While paying 6% for a borrowed \$13,500, it collects 6.6% on \$19,500 which makes the firm's return on its own \$6,000 investment a pleasant 7.95%.

▶ Profit on the sale is not taxable until P-P gets its money out, several years later. Mean-

while, will the government cut income taxes?

Except for its short term, the Pardee-Phillips deal closely resembles the setup pioneered by Los Angeles Builders **John Hadley** and **Ray Cherry** (H&H, Feb. '55). Hadley-Cherry sold \$9,250 homes on 20-year contracts, a plan that got investment out in eight months, but leaves profit invested at 6½%.

Says Partner **Doug Pardee**: "We are selling four to five houses each week under this plan, while other sellers are getting blanked. Besides, it brings us a few GI buyers at normal VA mortgaging."

## Big Builder Irving Rose tells how to make sales

Two years ago, **Irving Rose**, one of Detroit's biggest builders, sent Christmas turkeys to all 800 of the families which had bought homes from him that year.

Last year, he sent 825 Christmas baskets to his buyers. He also sends remembrances to them on birthdays and anniversaries.

Why? Rose explains: "You never know when they're going to have a few more children and need a new house."

This is just one of 300 merchandising ideas outlined by Rose last fall at a University of Illinois seminar. His ideas so impressed the building materials merchandising division of **HOUSE & HOME's** sister publication, **LIFE**, that it reprinted Rose's talk as a booklet.

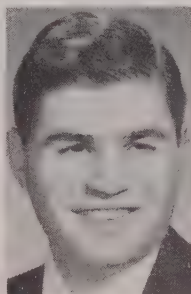
Other Rose ideas:

▶ "Plan your subdivision openings a year ahead of time. Break your promotion on a week-end when no other builder is doing anything spectacular.

▶ "When the keys are delivered . . . put them in a little treasure chest box, put them in a silver tray or a silent butler, or gold plate them. Include a set of theater tickets or dinner tickets with the keys. You might even deliver the keys and personally thank your new homeowners for having been such wonderful people."

▶ "There's no sense in having a clean model [house] if you have a salesman who thinks he's got a job where he can dress as though he were on a Florida vacation. Your salesman's appearance should be just as sharp as any visitor who comes to your model."

Copies are available free. Write Lawrence M. Burnett, manager, building materials merchandising, **LIFE**, 9 Rockefeller Plaza, New York 20.



ROSE

## Cincinnati builders start night shopping and school for buyers

Cincinnati stores have a new competitor for evening-shopping families—new houses.

Under joint sponsorship of the **Home Builders Assn. of Greater Cincinnati** and the **Cincinnati Real Estate Board**, builders and realtors are holding their houses open from 6 to 9 p.m. Wednesdays. Builders had found too many sales concentrated in too few hours on Sunday afternoon. They hope family house-buying night will double their effective selling hours, say Home Builders **Lou Erdman** and **L. G. Lehman** who originated the idea.

Downpours the first two evenings almost washed out the plan, but the third week the turnout nearly equaled a Sunday afternoon. Some builders talked with prospects as late as 11 p.m., reported Executive Director **Earle W. DeLaittre** of the Cincinnati builder chapter.

Cincinnati builders were also stimulating public interest with a "home buyer's school." A five-week course of lectures on home buying—8 to 9:30 p.m. on Tuesdays—brought out as many as 500 would-be customers per session to learn from the experts provided by the association. The school was sponsored by the Cincinnati *Enquirer*.

## Give-away gimmicks are tried in California and Kentucky

Giveaway tieups between autos and housing developments have helped sales for two builders.

In **Louisville, Ky.** an auto dealer gave away a building lot in an outlying subdivision with every '54, '55 or '56 car. In **Fresno, Calif.**, a developer offered a new Chevrolet for a cut-rate \$600 to the first 100 buyers of his homes.

The Louisville tract is part of a 98-acre farm on a dirt road 1½ mi. off busy Dixie Highway, 35 mi. from Louisville. It has no community facilities.

**Stanley Riley Jr.**, who owns the tract, signed an agreement with **Riggs Motor Co.** to deed one or more Dearborn Park lots to any late-model car buyer who wants one. In return, Riggs pays Riley from \$150 to \$300 per lot, depending on its location.

Auto sales rose 60%, says Sales Manager **Charles Squires**. Riley moved 12 lots out of 221.

The California deal, offered by **Rancho Realty & Development Co.**, led to 50 sales of \$12,950 (three-bedroom, two-bath) and \$14,350 (four-bedroom, two-bath) homes in three weeks. President **Richard J. Dougheed** said the difference between \$600 and the cost of the new Chevrolets came out of land profits—not the house. Said newspaper ads: "Every dollar the car costs above \$600 is paid for 50% by Uncle Sam because of less tax on our reduced profits. . . . The buyer may sell [the auto], give it away, borrow money on it."



# COORDINATED COMPONENTS

Sirs:

Thank you for your effort to bring some degree of order out of the chaos of sizes (June issue).

This should be of great benefit to the entire interior shutter business since we must design, price and manufacture literally 'thousands' of sizes of window, door and counter bar shutters to fit the heterogeneous mass of openings provided by architects, designers, builders and fabricators.

STUART L. KLINGELSMITH  
Shuttercraft of California  
Arcadia, Calif.

Sirs:

Thanks to you we now have a useful reference of dimensional standardization.

NEAL MACGIEHAN  
Asst. to the president  
General Industries Homes  
Fort Wayne, Ind.

Sirs:

Because of the great variety of window sizes currently manufactured, we are required to fabricate almost every metal strip order to specification.

Obviously our job would be a great deal easier and I believe we could secure a much wider distribution of our products if the modular standards you are working for would be adopted by all segments of the building industry.

L. A. LICALZI, sales manager  
Master Metal Strip Service  
Chicago

For more news on coordinated window sizes, see page 176—ED.

# ERRORS

Sirs:

Your May news article on the Forbesdale project, first Sec. 220 single family home project in the country has four errors:

1. The house price range runs from \$13,000 (\$12,990) to \$17,000 (\$16,800).
2. The project was not built on open land which the city had "set aside." We assembled the tract through the purchase of 606 25' lots; we relocated the families living there; we demolished all the buildings on the tract prior to disposal to Oaklyn Construction Corp.
3. Oaklyn Construction Corp. did not buy the land "without write-down." The gross cost of this project was \$754,229 and involved a capital grant of at least \$126,517. The City of Perth Amboy is providing local grants-in-aid in excess of \$300,000. This includes all the water mains, widening and paving of periphery streets, the interior sanitary sewer system, trunk sewer for storm water runoff, and the storm sewer main, the sanitary sewer trunk line and the sanitary sewer main. The Oaklyn Construction Corp. paid \$266,357.57 for the 40.8 residential acres of this project. The 7.3 acres set aside for a shopping center has not yet been disposed of, but it is inconceivable that we will dispose of it for a price so great that it will eliminate the need for a write-down on this project.
4. The Oaklyn Construction Corp. purchased the land for the Housing Authority of the City of Perth Amboy.

continued on p. 118



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UNDERLAYMENT?**

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*of course!*

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- Dry! Won't shrink or swell
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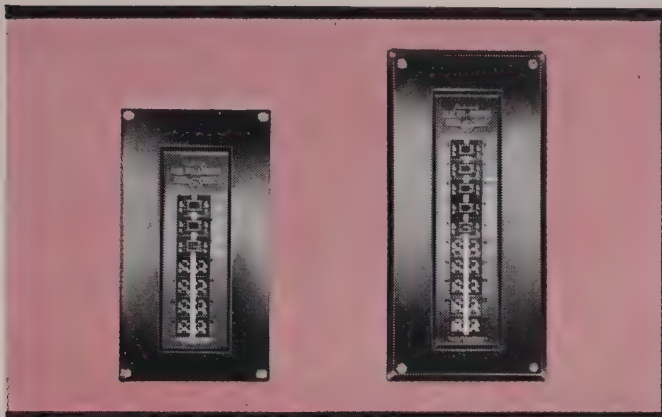
Write for this handy 48-page pocket size specification guide. Contains application, finishing and grade data. Douglas Fir Plywood Association, Dept. HH, Tacoma 2, Washington.



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DFPA grademarks are your assurance of plywood quality. Specify PlyBase® or PlyPanel® grades for underlayment. Other grades for other jobs.

Plywood of other western softwoods available; look for this DFPA grademark.





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**Built-in protection  
that helps sell homes—**

**100-Amp HOUSEPOWER plus  
pushbutton convenience**



**Install Bulldog Electri-Centers . . . provide full "Housepower" and extra safety!**

Today's house-hunters are looking for adequate wiring. And Bulldog Electri-Centers® provide 100-amp "Housepower" to meet today's and tomorrow's electrical needs. They offer more capacity, more safety, easier operation.

Bulldog's famous Duo-Guard Pushmatic® circuit-breakers end the hunt and fumble for fuses! Just a push restores service—a convenience home prospects want. Pushmatics provide *double automatic protection* that safeguards branch circuits and lamp or appliance cords—thermally against

normal overloads—and solenoid-magnetically against high overloads and shorts.

In addition, the 100-amp "XD" Series features a split-bus arrangement—the top section for 220V appliances, the lower for 110V lighting—with extra spaces to add future circuits.

Bulldog Electri-Centers have sales-appeal! Ask your Bulldog field engineer, electrical contractor or distributor—or write to Bulldog Electric Products Co., Detroit 32, Michigan.

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See SWEET'S FILE, Architectural, for specifications and installation data, or mail coupon below:

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There is no Redevelopment Authority of the City of Perth Amboy.

THOMAS A. PATTEN, *director*  
*Housing Authority of the*  
*City of Perth Amboy*  
*Redevelopment Agency*  
*Perth Amboy, N.J.*

### FORGOTTEN MEN?

Sirs:

I have 'diligently searched' your glorified contractor's manual trying to find something of interest to architects. They're the forgotten men in your search to be all things to all people in the construction game.

DONALD J. CLARK  
*San Francisco*

### THE POWER OF A WOMAN

Sirs:

I read with considerable interest the Women's Forum on Housing (June issue), and I look forward to more of this type of discussion, because I think many of our architects and contractors have gone off half cocked. More power to the women!

W. H. ST. THOMAS  
*Gloversville, N.Y.*

### TRADE-INS

Sirs:

I was very much impressed with your July article on trade-in houses. Are re-prints available?

I released a bulletin on trade-ins to our field sales representatives about a week ago and this additional information will be helpful in making the smaller builders more aware of their potential in adopting such a joint selling technique.

N. L. MACKOV, *manager*  
*Building Coordination*  
*American-Standard*  
*New York City*

### NEW YORK HOME SHOW

Sirs:

The story entitled "Union Display of Makework Tactics Overshadows First New York Home Show" (June, News) . . . will succeed only in giving readers an incorrect and misleading report. . . .

Several spontaneous jurisdictional problems arose. These were taken care of as soon as they were (made) known by the subcontractors to the exposition or the exposition management itself. . . . The exposition moved out of the Coliseum with no recurrence of the situations that existed when moving in. Aside from this:

1. At no time did the teamsters parade around the building stopping deliveries.
2. The stagehands did not take down any exhibit which the carpenters had put up.
3. The figure of \$10,000 quoted by Don Scholz as his expected cost to construct two prefabricated homes is incorrect. This was the amount that he would have spent to build these two homes in a building development, using all labor at straight time with no overtime. These exhibit homes were built in three days, and the final cost figure of \$30,000 was not an actual final cost. This was an exaggerated guess made by a Scholz representative before he had even received his bills. Scholz representatives met with the labor subcontractors for two months prior to the

*continued on p. 121*



# BUILDER SELLS 300 HOMES IN 2 DAYS!

**Establishes a New  
Record in Chicago's  
Highly-Competitive  
Market**

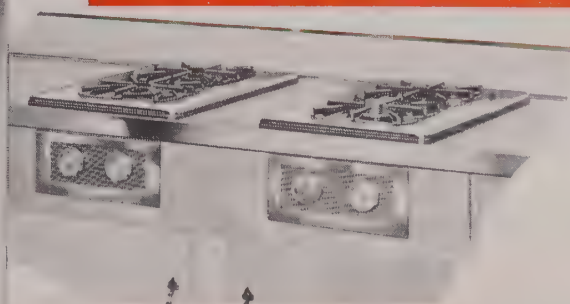


THESE HOMES FEATURED

# ROPER

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## BUILT-IN GAS Ranges



**Extremely Adaptable  
... Easy to Install**

Roper Built-In Gas Ranges fit a wide choice of popular cabinets . . . wood and steel. Write for full specifications, or see your building material dealer. Get started now.

During one short week-end, The Winston Park Corporation, Chicago, sold 300 new homes priced from \$21,500 to \$28,500. Model homes were opened to the public on Saturday morning, September 10, 1955. By the following Sunday afternoon, every home in the development was sold, and hundreds of prospective buyers had to be turned away. These new homes featured ROPER Built-In GAS Ranges. You can add record-breaking sales appeal to your homes, too, with ROPER Built-Ins.

Geo. D. Roper Corporation  
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Rush me full information on Roper "arRANGEable"  
built-in gas cooking units.

HH856

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Individual \_\_\_\_\_

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City \_\_\_\_\_ State \_\_\_\_\_

I am a \_\_\_\_\_ (type of business)

My building material supplier is \_\_\_\_\_

NAME \_\_\_\_\_

(City) \_\_\_\_\_ (State) \_\_\_\_\_

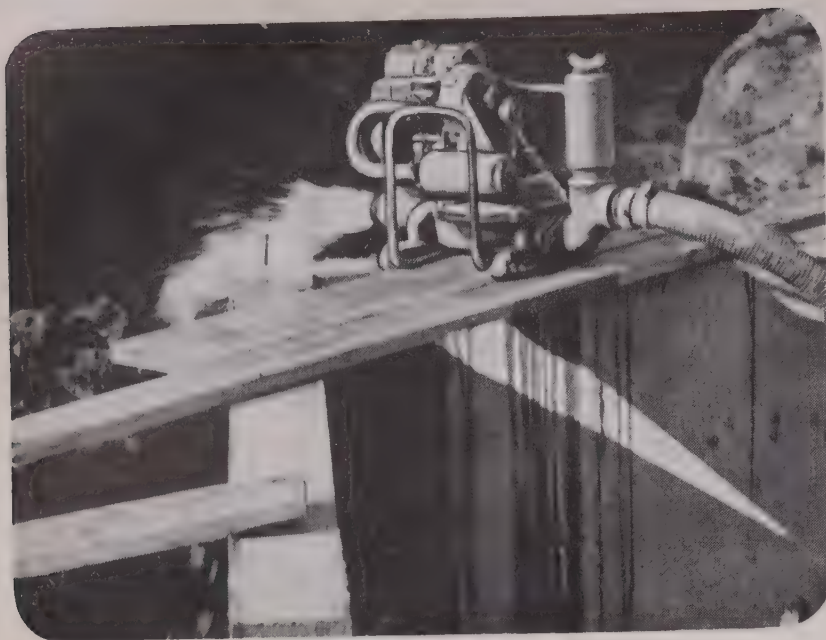
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CONTROLLED-HEAT TOP BURNER  
Makes Any Utensil Automatic!**

Only ROPER offers you Roper "Tem-Trol", the automatic top burner that ends burning, scorching and boil-over. "Tem-Trol" gives the housewife carefree cooking, gives you super-strong selling power. Other Roper features include "Insta-Lite" automatic ignition, big "Bake-Master" oven, "Silent-Roll" smokeless broiling, and more . . . all at competitive prices.

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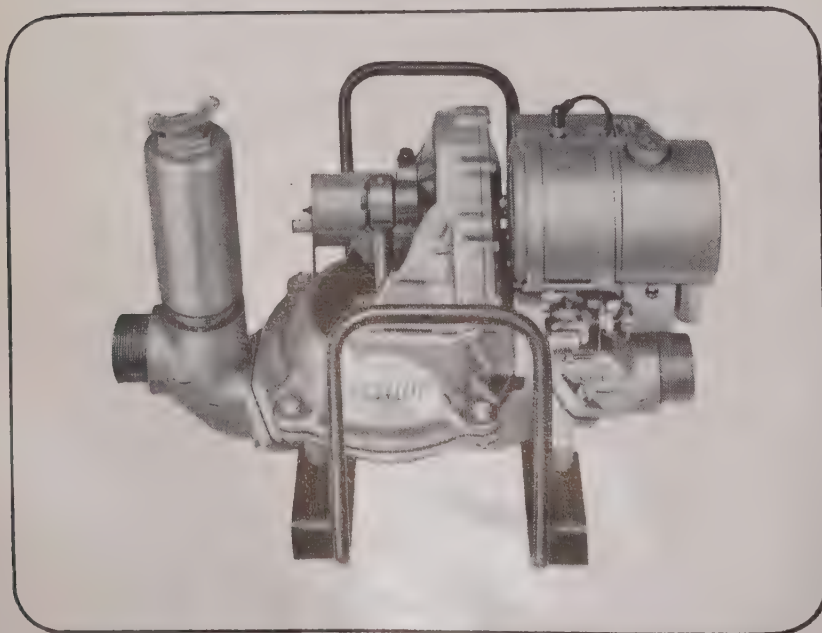
Rockford, Illinois





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**The new heavy-duty  
diaphragm pump  
that's light enough  
to carry**



Here's the diaphragm pump that goes most easily to the job and does more when it gets there. Specifically designed for continuous, heavy-duty work, this Homelite pump will de-water an area at a 5000 g.p.h. clip, then keep right on going to handle seepage in the thickest mud, muck and sand. Yet, because it weighs only 120 pounds, it gets to the job fast . . . even over the roughest terrain.

The entire unit is built for long, trouble-free operation. Manual throttle control adjusts engine speed for full-capacity pumping or handling small seepage flow . . . gives greater fuel economy and prolongs engine life. Ball and roller bearings protect engine and pump from excessive wear. Totally enclosed reduction gears run in oil. Tough, oil-resistant diaphragm can be easily replaced in ten minutes right on the job.

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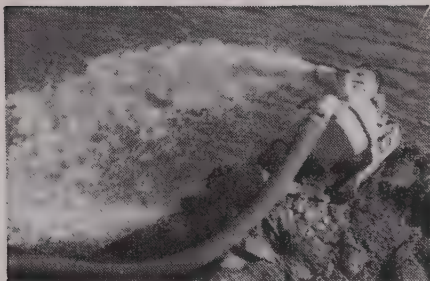
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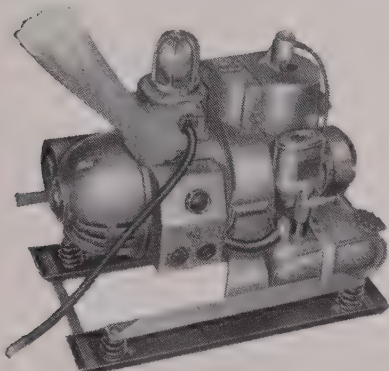


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exposition and were fully aware of all labor rates.

4. The statement that several exhibitors tried to use their own union men, and were not allowed to, is only partially correct. Many exhibitors, including Scholz Homes, requested and were granted permission to use their own union men. In other cases the laborers exhibitors wanted to use were not of the unions with jurisdiction to work in the Coliseum.

5. The wages charged by Coliseum workmen should not have "stunned" exhibitors. Exhibitor bulletins were sent to all exhibitors in advance, stating that union labor must be used in all operations connected with the exposition, and listing the established union rates.

6. Electricians were not paid \$10 an hour. They charged \$10 per outlet.

7. Carpenters did not get \$11 an hour. The rate was \$6.15 per hour straight time and \$11.65 per hour overtime.

8. Forty-two exhibitors did not threaten to quit the show. The total was three. No exhibitor left the show; not "several" or "a dozen" as claimed. The sponsors did not say two had left the show. The management said that two who had contracted to exhibit failed to bring their exhibits into the show.

9. H&H is certainly entitled to (its) own opinion as to the make-up and presentation of the show itself. However, it is in sharp contrast to the opinions expressed by hundreds of builders who both participated in the exposition and visited the exposition during its nine-day showing.

WALTER G. STACKLER  
Chairman of the board  
CHARLES M. JAEGER  
President  
Home Building Industry  
Presentations Inc.

Taking up the allegations of Readers Stackler and Jaeger item by item:

1. At least 15 exhibitors reported that teamsters thronged the sidewalks at every entrance to the Coliseum, preventing exhibitors from carrying in any part of an exhibit, however small. One exhibitor said he tried to bring in a box of stationery but was stopped by a teamster who told him only a teamster could carry the box into the building.

2. Several exhibitors (but not all) reported stagehands took down items erected by carpenters. Two exhibitors said they had to make peace on the spot between stagehands and carpenters unions as stagehands took down metal booth bars erected by carpenters.

3. Says a Scholz executive: "Scholz did not make an exaggerated guess. The final cost figure was so high that Scholz is withholding payment and instituting suit against the contractors. The final cost for erecting and dismantling the houses was on the order of \$30,000."

4. Instances where exhibitors were allowed to use their own union men were rare. Says the Scholz spokesman: "For almost two days five union members of our organization stood around and were not allowed to pick up a tool."

5. Exhibitors H&H talked to were not merely stunned at exhibit costs; they were aghast.

6. H&H erred. But \$10 an outlet could add up to even more than \$10 an hour. At a subsequent show in the Coliseum, a H&H photographer discovered the tab had risen to \$13 an outlet—even for an hour's use.

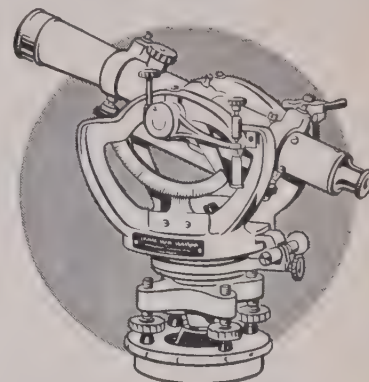
7. H&H should have made it clearer that the \$11 (or \$11.65) an hour overtime rate applied to a great part of the installation work, which went on 'round the clock.

8. Several exhibitors told H&H 42 of them had signed a letter to the management threatening to quit the show. Coliseum Press Agent Hayward Cleveland admitted "several exhibitors" were threatening to quit, added he understood some already had.

9. A matter of opinion. H&H stands by its view that the show was, at best, mediocre, and, in a critical light, plain bad.—ED.



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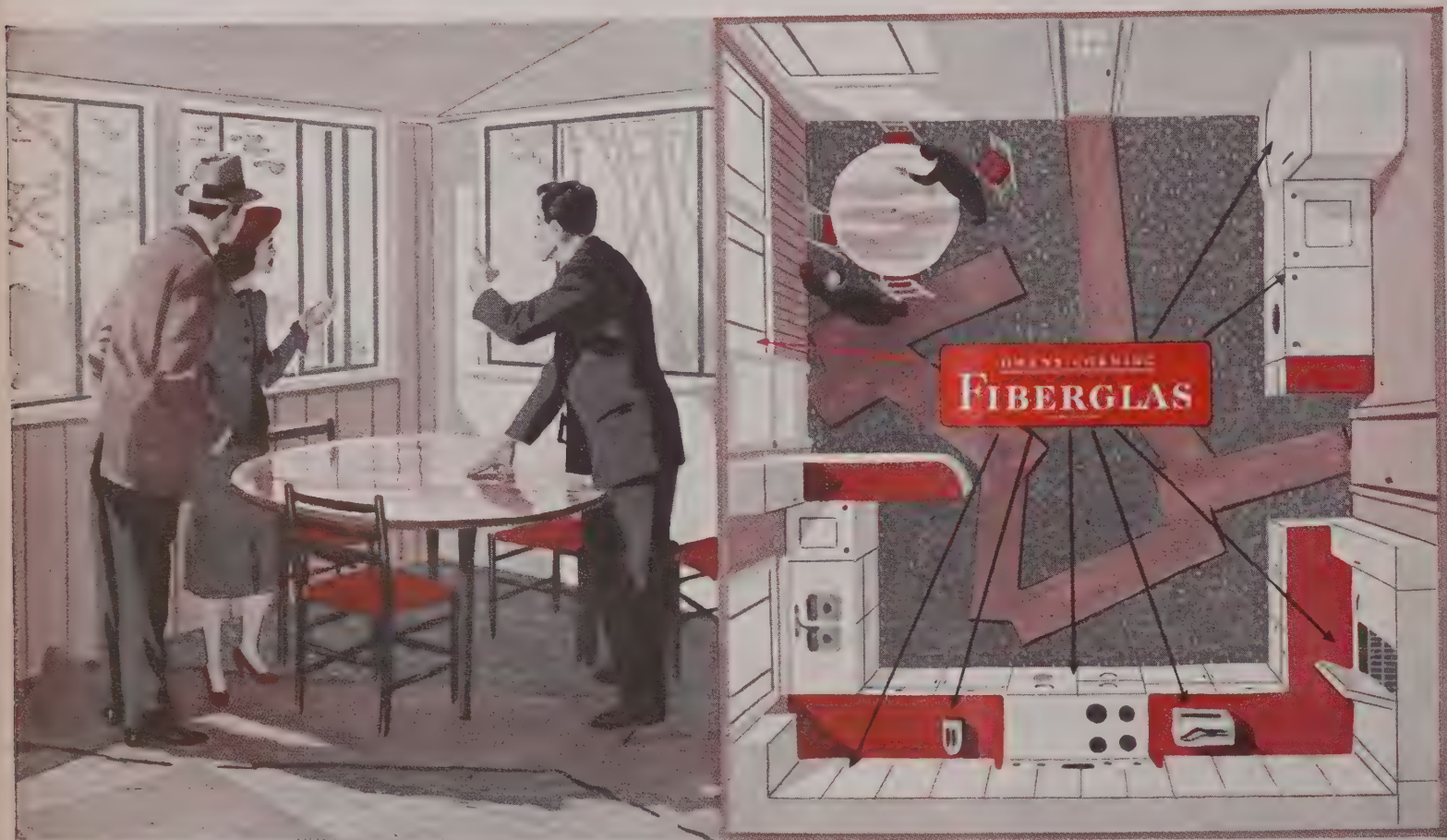
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HOUSE & HOME



# House & Home

August 1956  
Volume X, No. 2

Published by TIME Incorporated

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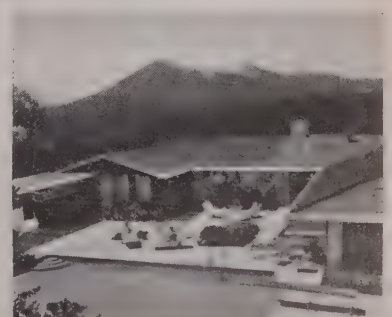
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Cover: a good patio is an outdoor room  
(see p. 124). Photo: Andreas Feininger—LIFE









# THE PATIO:



A place to enjoy the outdoors in privacy

Two years ago this month, HOUSE & HOME published a 17-page feature story on the merits of patio houses. It said, in part:

**Your nicest room can be outside your house**  
*it can sell your house faster than just about anything else*

—and look what happened: all over the US, patio-houses are fast becoming the most popular plan-type since the split level. Even on Long Island, where splits are driving out the potatoes, the only real challenger to the split level to appear in four years is a patio house introduced last fall in Morton Village at Plainview.

Opinions differ on what makes a patio a patio. Some people think of a patio as a back porch or a slab on grade pretending to be a terrace. Actually, a patio can have a porch and it can be paved. But the most important thing about a patio is that it must be surrounded by walls, fences, screens or hedges *so you can enjoy the outdoors in privacy.*

So, for most practical purposes, the patio is simply an outdoor *room*. For reasons why this outdoor room is becoming so popular, please turn the page.

*Patio in Seattle house.  
 Translucent glass screen  
 assures outdoor privacy  
 (see also pp. 130-131.)  
 Paul Thiry, architect.  
 Drawing above by  
 Carlos Diniz, from  
 Garrett Eckbo's "The Art  
 of Home Landscaping"*



## Builders' houses



Julius Shulman

LOCATION: Anaheim, Calif.  
DESIGNER: Jones & Urnston  
BUILDER: Ross Cortese



J. Alex Langley

LOCATION: Plainview, Long Island  
ARCHITECT: Rudolph A. Matern  
BUILDER: Morton Brothers



Julius Shulman

LOCATION: Sherwood Forest, Calif.  
ARCHITECT: Smith & Williams  
BUILDER: George Buccola



Julius Shulman

LOCATION: West Covina, Calif.  
ARCHITECT: Edward H. Fickett  
BUILDER: Koppe-Smith Construction Co.



Ulrich Meisel

LOCATION: Dallas, Tex.  
ARCHITECT: E. G. Hamilton  
BUILDER: Lloyd Smoot Jr.



Mason Weymouth

LOCATION: Palo Alto, Calif.  
ARCHITECT: Anshen & Allen  
BUILDER: John C. MacKay & Assocs.



Morgan Fitz

LOCATION: Thompson, Ga.  
PREFABRICATED BY: Knox Corp.

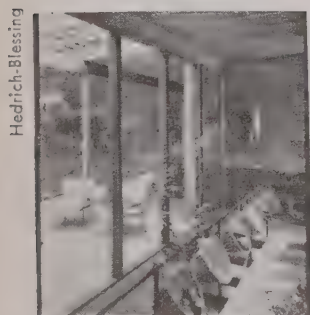


Julius Shulman

LOCATION: San Fernando, Calif.  
ARCHITECT: John Kewell  
BUILDER: Cedric Roberts & Son

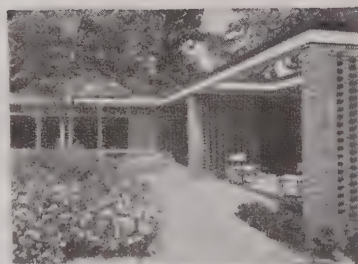
More builders and architects are turning to **THE PATIO HOUSE** . .

## Custom houses



Hedrich-Blessing

LOCATION: Flossmoor, Ill.  
ARCHITECT: Schwelkher & Elting  
CONTRACTOR: E. W. Sprout Constr.



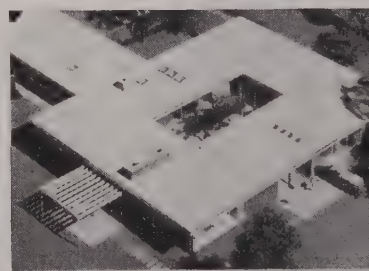
Allied Photographic Illustrators

LOCATION: Memphis, Tenn.  
ARCHITECT: A. L. Aydelott & Assocs.  
LANDSCAPE ARCHITECT: Wiley T. Jones



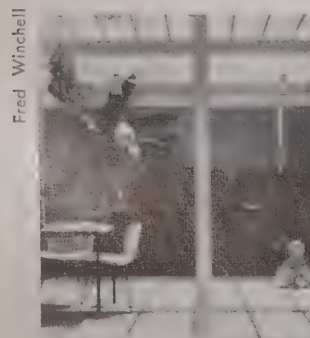
McFadden Air Photos

LOCATION: Miami, Fla.  
ARCHITECT: Morris Lapidus  
CONTRACTOR: Escot Construction Co.



Louis Chackman

LOCATION: Bedford Village, N. Y.  
ARCHITECT: Antonin Raymond & L. L. Rado  
MODEL BY: Theodore Conrad



Fred Winchell

LOCATION: Houston, Tex.  
ARCHITECT: Burdette Keeland Jr.  
BUILDER: W. K. King



Rodney McKay Morgan

LOCATION: Memphis, Tenn.  
ARCHITECT: Robert T. Martin



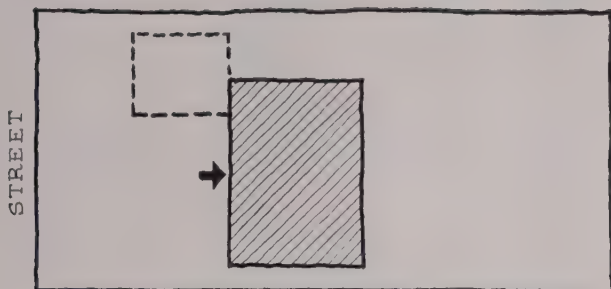
LOCATION: Sarasota, Fla.  
ARCHITECT: Twitchell & Rudolph



Ben Schnell

LOCATION: Charlottesville, Va.  
ARCHITECT: Edward Stone  
CONTRACTOR: Charlottesville Construction Co.

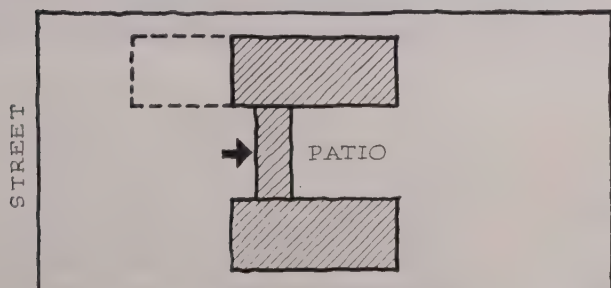




#### The old way of using a small lot:

Here is a typical 1,200 sq. ft. house on a 7,200 sq. ft. lot. It has the usual (unusable) setback from the street, and the usual (public) garden in back. Without extensive use of fences, screens and hedges, this lot has no outdoor privacy at all.

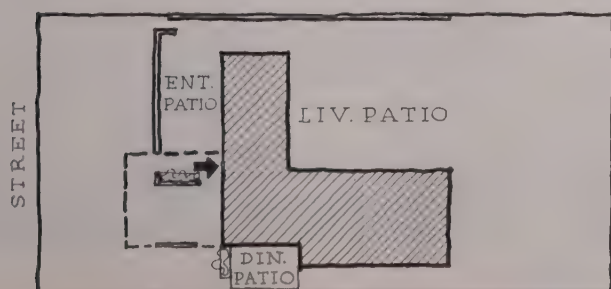
... for better use of small lots



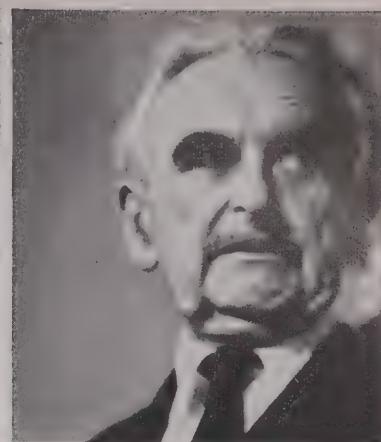
#### The patio way of using a small lot:

Here is a 1,200 sq ft. patio house on a typical 7,200 sq. ft. lot—and look at the difference: part of the outdoor area has real privacy, wind-protection and shade. It is an extra room that costs very little to add. For details of how such a plan could work inside as well as out, see pp. 136-137.

Below is a slightly different kind of patio house on an even smaller lot: a New Orleans house in the New Orleans tradition. A wall surrounds the 60' lot. Result: the whole lot has become usable. Details pp. 132-133.



Thomas Hollyman



## THE PATIO HOUSE:

an ancient concept that can solve  
a modern problem

by Richard J. Neutra, architect, FAIA

The history of man's shelter is a progression that starts with the cave and leads, step by step, to the patio of today.

"Man, the Southerner" was driven into the caves of Monte Castillo and other, similar hollows during the last glacial period. When the supply of natural caves was exhausted, man began to construct cave-like structures for thermal defense. But he soon discovered that caves were not a perfect solution, for the absence of heat rays inside produced a clammy atmosphere that favored microbic growth. And so man began to open up his living spaces to the beneficial rays of the sun. The patio was the result (FIG. 1).

Photos: Julius Shulman



FIG. 1

Rome and Etruria are generally considered the principal sources of the atrium but, actually, the patio was internationally accepted. Something very much like it was created, independently, in such far flung

continued on p. 196





LOCATION: Lafayette, Calif. ARCHITECT: Walter H. Costa

## A PATIO is just another room ...

LOCATION: San Francisco, Calif.

LANDSCAPE ARCHITECTS: Eckbo, Royston & Williams

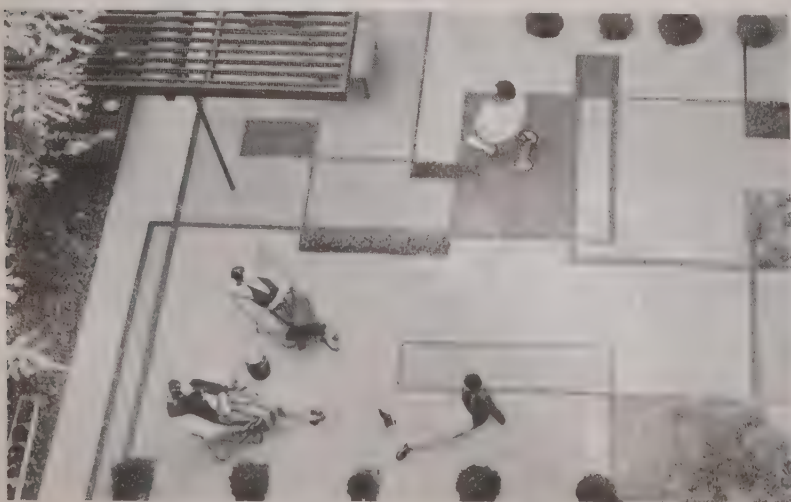
CONTRACTOR: George Hitchcock

LOCATION: Orange, Conn.

ARCHITECT: Marcel Breuer

CONTRACTOR: Emerson A. Daniels

Ernest Braun



... with floors ...

Ben Schnell



... a ceiling ...



... with built-in furniture ...

LOCATION: Pleasantville, N. Y.  
ARCHITECT: Giorgio Cavaglieri  
CONTRACTOR: Dorchester Construction Co., Inc.

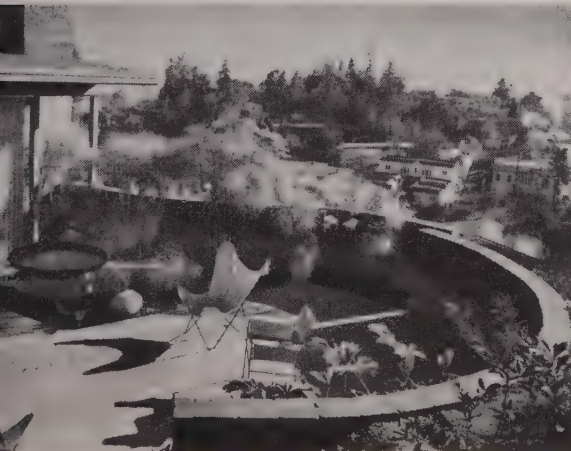
Marc Neuhof



... with a fireplace ...

... with a focal point ...

LOCATION: Frimkess, Calif. ARCHITECT: Kemper Nomland, Jr.



Julius Shulman

... with walls ...

... and with a view



LOCATION: Pacific Palisades, Calif.  
ARCHITECT: A. Quincy Jones & Frederick E. Emmons  
BUILDER: Pat Hamilton

Bill Early



LOCATION: Pacific Palisades, Calif.  
ARCHITECT: A. Quincy Jones & Frederick E. Emmons  
BUILDER: Pat Hamilton

Julius Shulman

LOCATION: Westbridge, Calif.  
ARCHITECT: E. Jay Miller & Robert D. Steiner  
CONTRACTOR: R. A. White

Rondal Partridge







*Slate floor of living room extends out into patio, through wide sliding glass doors*

## **PATIO IN SEATTLE:** an outdoor extension of the living room

Here is a patio that actually doubles the size of the living room for a large part of the year.

Located in the center of a U-shaped plan, this patio serves as an extension of the main living area, as an extension of the study, and as an entrance court as well. It actually faces the main approach to the house and is given privacy by a translucent glass screen.

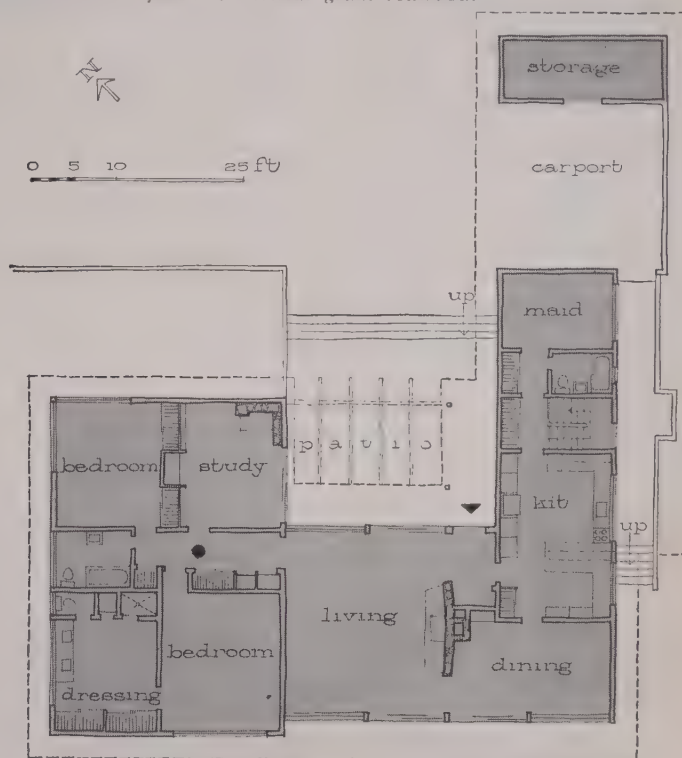
Architect Paul Thiry faced this little oriental garden east to protect it against winds and rain driving in from the south and west. So, the patio forms an intimate, sheltered garden, fully usable even when the weather would normally keep the owners indoors.

LOCATION: Seattle, Wash.  
ARCHITECT: Paul Thiry  
CONTRACTOR: Harold Pettijohn





Southwest side of house has large glass areas to take advantage of dramatic view of Puget Sound and the Olympic mountains. Exterior finish is vertical grain redwood.



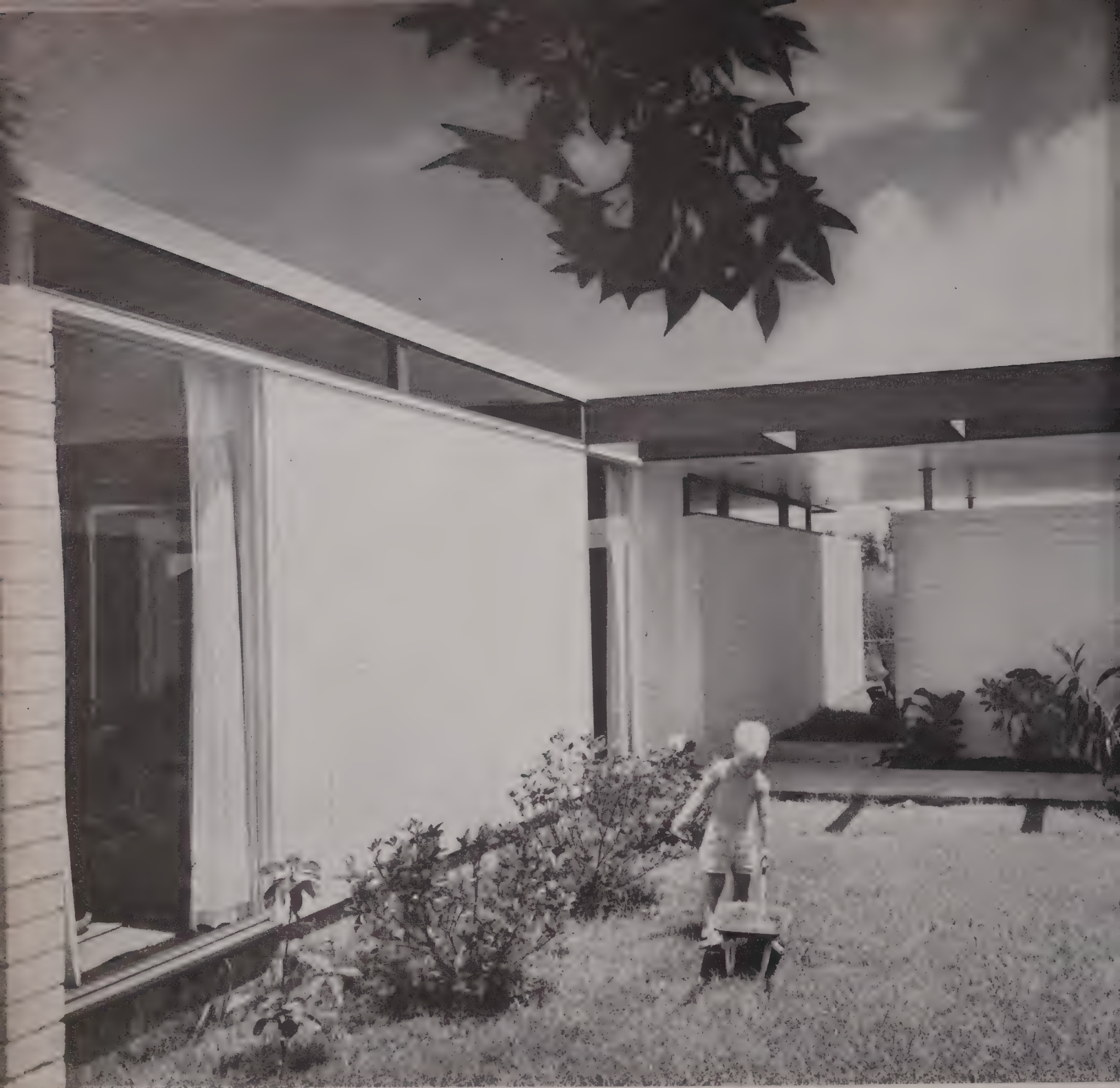
Living room and patio form a continuous, glazed expanse in the center of the house.

Approach side of house shows translucent glass screen shielding the patio. Oriental landscaping is effectively silhouetted against screen.

Patio has open trellis roof resting on laminated girders.







*Entrance patio is shielded against street by 6' high block wall (right), so children can play in safety*

## **PATIO IN NEW ORLEANS:** protection and privacy on a 60' lot

The glass-walled, flat-roofed house shown here is really one of the most traditional houses built in the US this year: its patio plan is in the tradition of New Orleans and Charleston. Chief difference: this house was built on a 60' x 114' lot—the typical small lot found today in every American suburb.

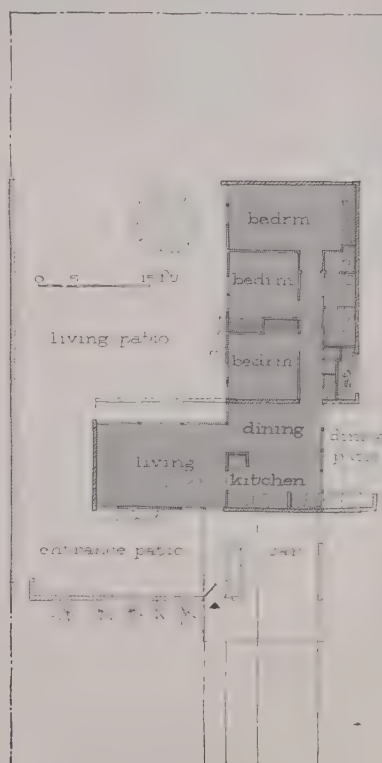
Because the house, like the lot, is typical (three bedrooms, 1,250 sq. ft. plus carport), there are important lessons to be learned from it. For here, at last, is a small-lot house with most of the outdoors a private garden; a small-cubage house whose every room has an outdoor extension that doubles and triples its usable size; and a small-budget house that could be built for \$10 per sq. ft., including more than 100' of privacy walls that surround the lot.

LOCATION: Jefferson Parish, La.  
ARCHITECT: Victor Bruno





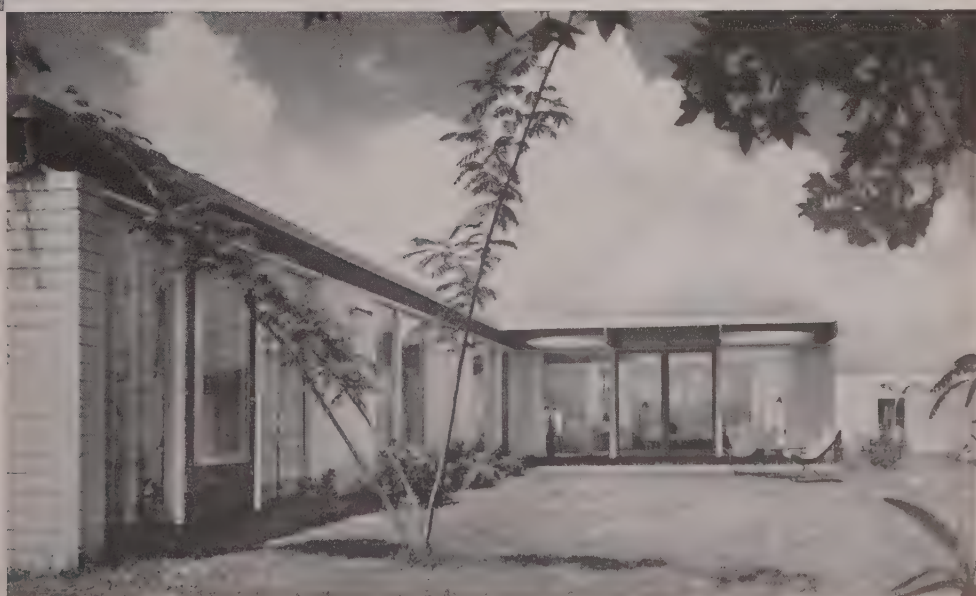
**Street view** shows long, low-slung facade consisting of privacy walls and carport. Entrance gate is near center.



**Plan** has three outdoor areas complementing indoor spaces. Twenty foot setback from street (a zoning ordinance) is only wasted lot-space.

**Bedrooms** and living area face a completely private walled garden. Under such conditions, large glass areas make sense even on small lots.

**Wrought iron gate, a traditional touch, leads into entrance patio.**







*Pitched roof trellis over entrance court is supported on two rows of lally columns—one running along ridge line, the other offset*

## **PATIO IN MARYLAND:** a formal entrance for a formal house

One of the many lost arts in architecture is the art of making a grand entrance. Here is an attempt to resurrect that art, using the patio as a spacious “outdoor foyer” that leads up to the front door.

Architect Dan Schwartzman found this entrance patio useful in more ways than one: it helped to divide the plan of the house into three major elements—the bedroom wing, the library-living-dining wing, and the service wing. These three were grouped around the patio in a logical U-shape.

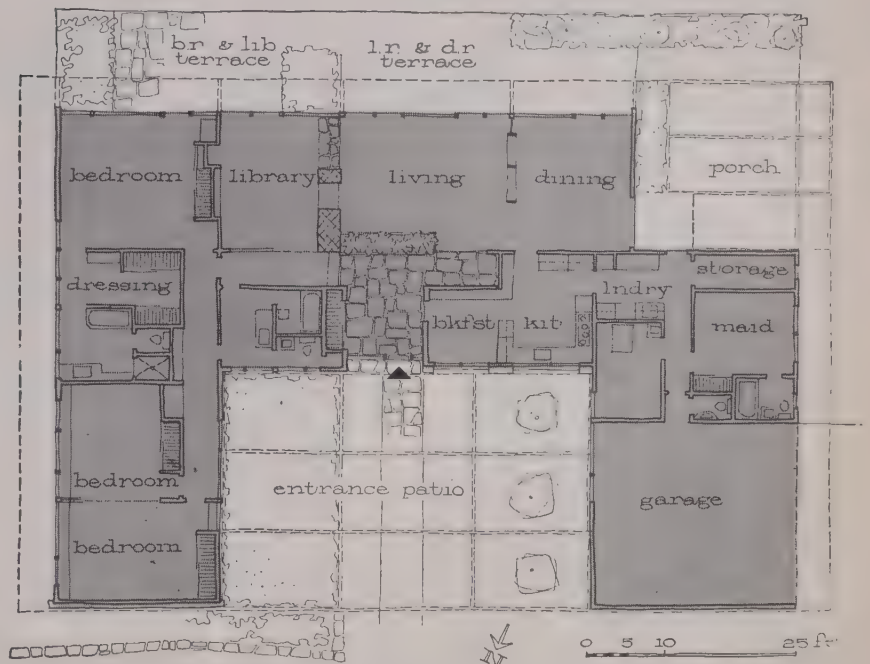
LOCATION: Baltimore, Md.  
ARCHITECT: Daniel Schwartzman  
MECHANICAL ENGINEER: John D. Dillon  
GENERAL CONTRACTOR: Pasarew Construction Co.

Most modern patio houses tend to have flat or shed roofs, since the irregular plan-shapes created by interior patios produce a complicated pitched roof structure. Here the architect took up the challenge of the pitched roof, solved it with considerable grace.





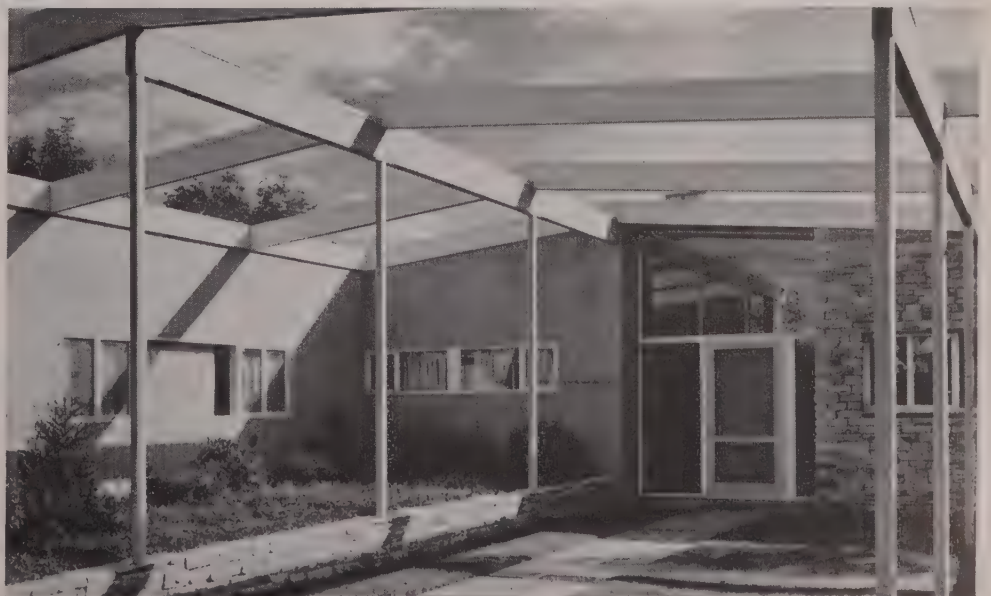
*Roof frame is unifying design element, even where it is left open. Here it helps make dining porch part of the over-all house shape.*



*Generous floor area was heated by system of hollow partition tiles set into slab to form warm air plenum. Roman Emperor Tiberius used similar system 2,000 years ago.*

*Front door is reached after formal approach through entrance patio. Roof frame design gives both sun, shadow.*

*Terrace along south facade serves master bedroom, library, living and dining rooms.*







*Central patio faces south, has deep trellis roof that serves as sun-break during the summer*

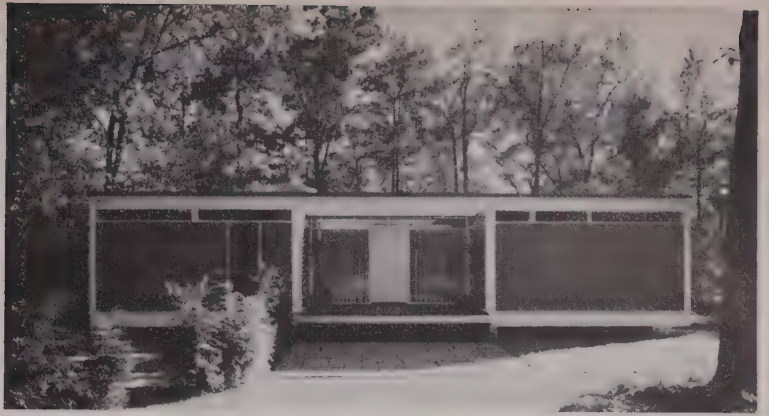
## **PATIO IN CONNECTICUT:** a buffer that divides the house in two

Nowhere is privacy quite so important as in a small house. This small house plan uses a central patio to provide privacy indoors—as well as out.

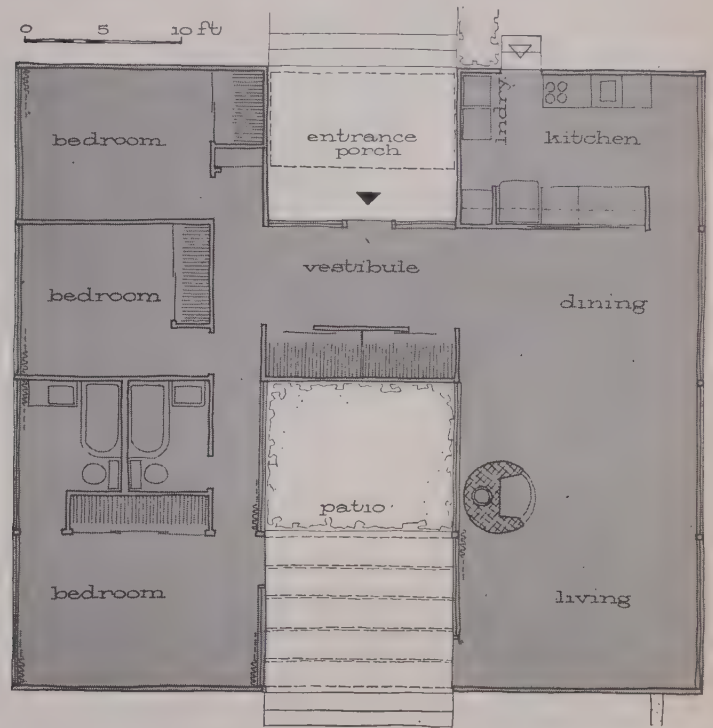
Architect John Johansen divided the 1,400 sq. ft. of enclosed living area into two equal zones (one for sleeping, the other for living) linked by an entrance foyer. Between these zones he provided an entrance porch to the north and a formal patio to the south. The resulting 15' wide buffer zone assures bedrooms and living areas of privacy from each other, while extending the useful living area of each. Both the master bedroom and the living room face onto the central patio, a shielded retreat for most of the year.

LOCATION: New Canaan, Conn.  
 ARCHITECT: John MacL. Johansen  
 LANDSCAPE ARCHITECT (& OWNER): Paschall Campbell  
 INTERIOR DESIGNER: Stephen Gasparez  
 CONTRACTOR: T. deF. Hobbs





Entrance faces north, is formal, near-symmetrical. Post and dropped beam construction was used throughout. Slots of glass fill in space between ends of beams.



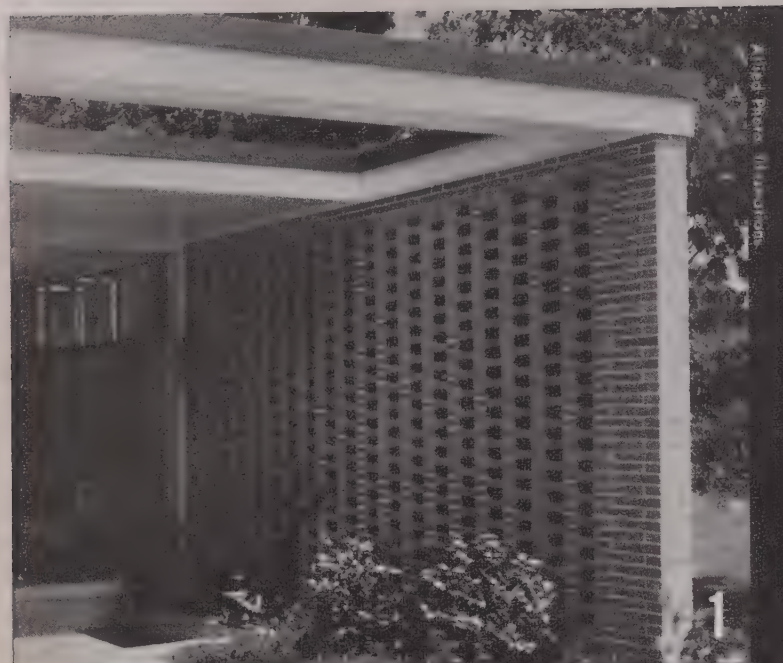
Plan shows simple, neat organization into two zones separated by 15' wide buffer. House would fit on a 60' lot.

Patio itself is divided into two areas: a wooden deck accessible from living room and bedrooms; and a square planting box. Only deck is shielded by sun-break.

Living room 16' wide looks twice as wide because patio extends it.







Morley Boer



Bill Early



Rondal Partridge

### PATIO WALLS

**1. Perforated masonry** gives lots of privacy (except head-on), can support light roof structures.

**2. Reinforced plastic**, in sheets of different colors, can be nailed directly to wood trellis, makes a good shading device to the west.

**3. Translucent glass**, set into steel frame, lets in light, screens out neighbors, passers-by. Steel uprights are set directly into concrete footings.

**4. Expanded metal** attached to posts with ordinary glass stops, gives illusion of privacy, can be covered with creeping plants.

### CREDITS:

1. ARCHITECT: Al Aydelott
2. LANDSCAPE ARCHITECTS: Baylis & Holdeman
3. ARCHITECTS: Jones & Emmons
4. ARCHITECTS: Miller & Steiner
5. ARCHITECT: Edward L. Barnes
6. ARCHITECT: Victor Bruno
7. DESIGNER: Peter Fraser Jr.
8. ARCHITECT: William M. Bray





Urie Meisel

### PATIO CEILINGS

5. Corrugated plastic is light, rigid, comes in good colors. Here it is screwed directly to wood trellis overhead.

6. Screening, can be used to enclose entire patio where insects are a serious problem. Glass fiber screening, particularly, has great stability, comes in several colors.

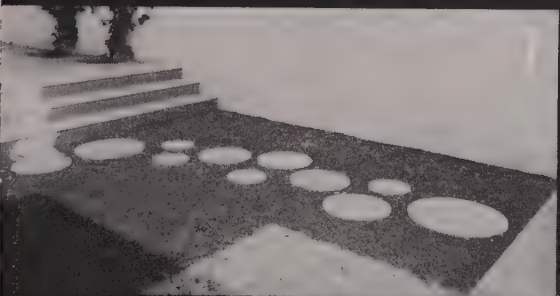


Frank Lutz Miller

### PATIO FLOORS

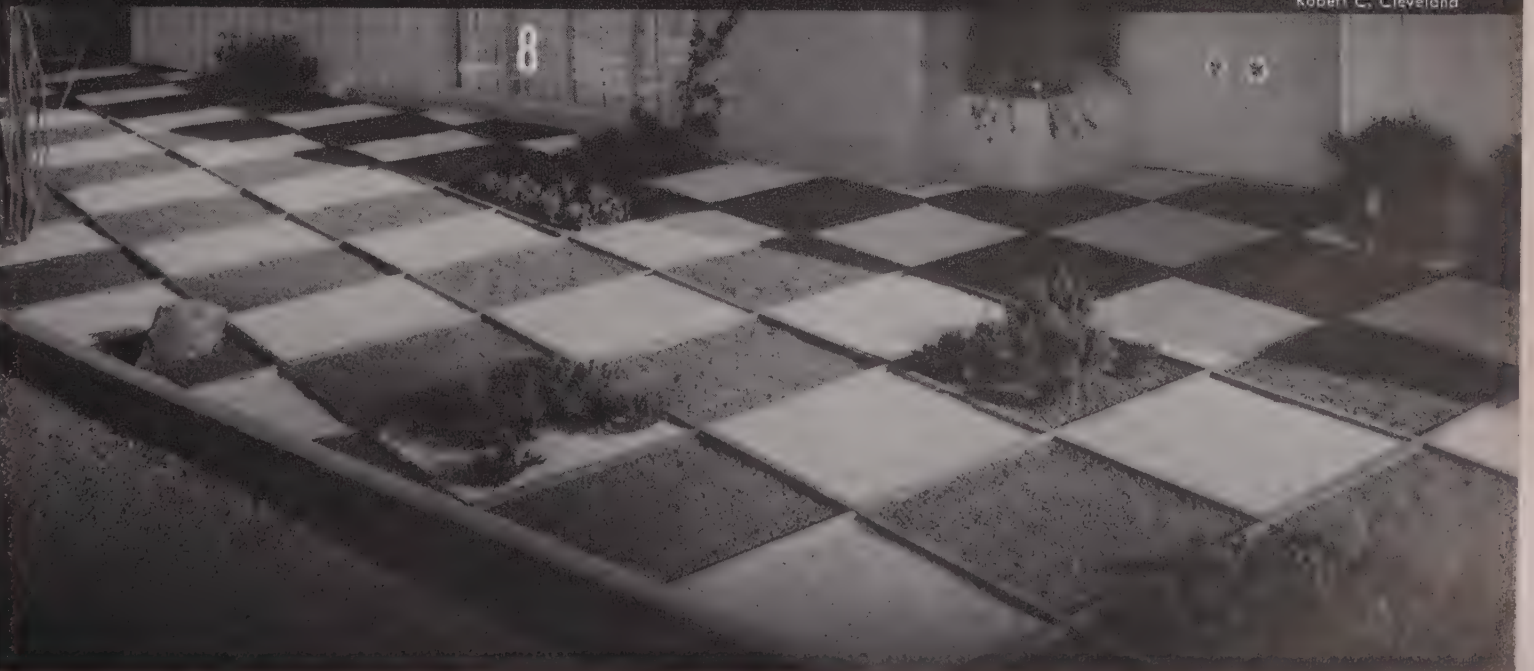
7. Concrete circles can be precast, then set directly into ground. To get smoothest surface, use glass for bottom of form. Integral coloring can be added.

8. Gravel squares, outlined by redwood 2 x 3's or 2 x 4's set on edge into bed of sand, can be varied with squares of planting, brick or concrete.



Rudi Rada

Robert C. Cleveland







Acker Photo Service

Market trend:

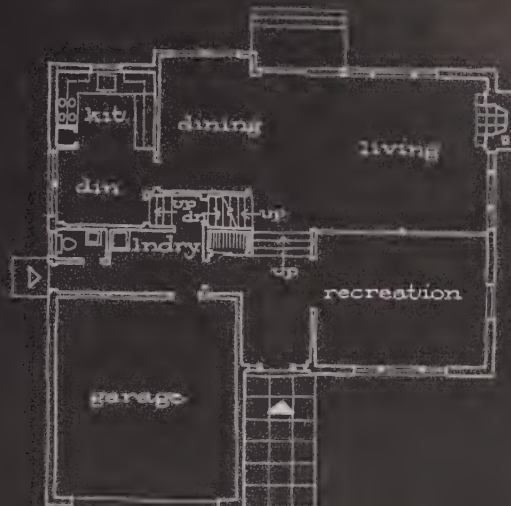
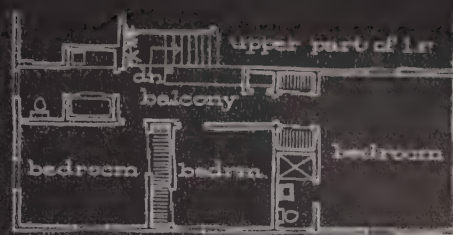
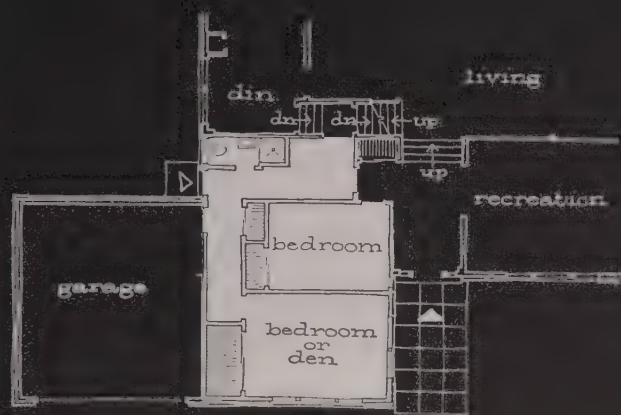
**These \$25,000 houses started selling fast**

Peter S. Van Alst





For families who need four and five bedrooms, optional plan (below) converts the original garage of split-level model into a bedroom wing that adds two extra rooms. To give this wing bath facilities a stall shower is added to the existing first floor powder room. Fixed price for this option: \$3,100.



## when builder offered fixed-price options

**H**ere's more market evidence that today's successful house must "have everything."

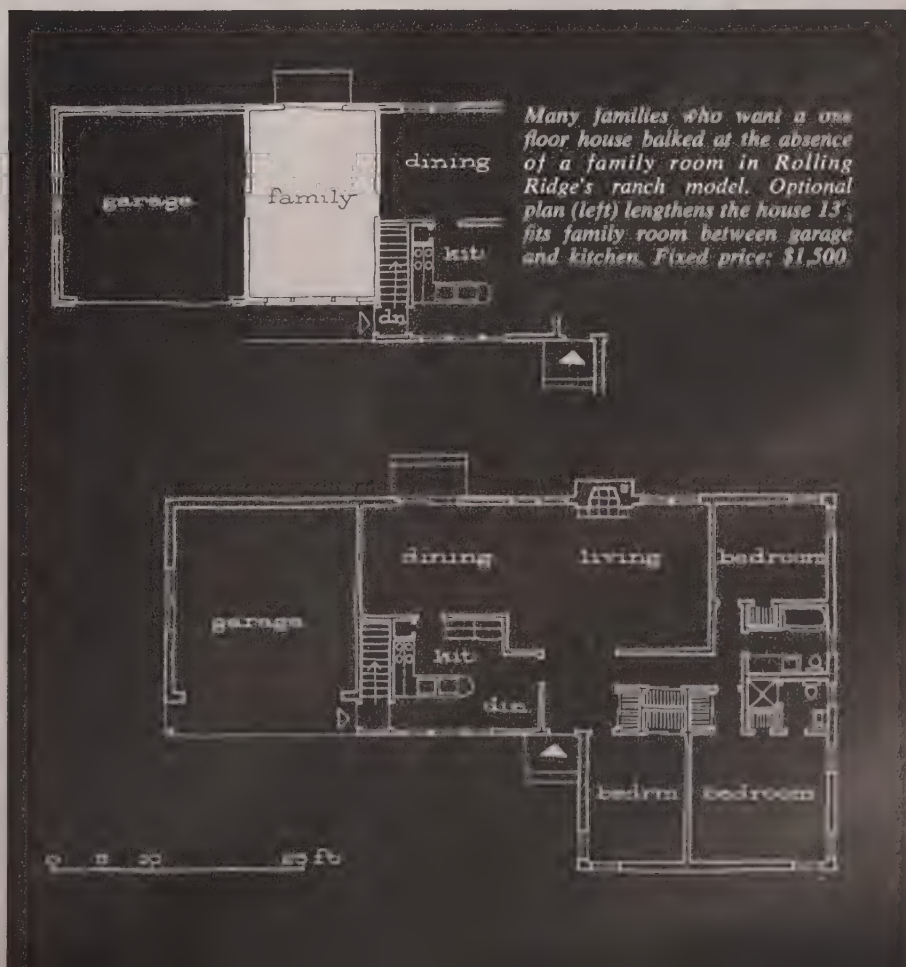
To meet stiff Long Island competition, builders Fabian and Ray Alexander and their partner Sol Goldstone put an impressive array of "extras" into their houses at Rolling Ridge (see the next two pages). They included three bedrooms and two baths in their plan. They offered buyers a choice of split level or ranch style houses.

But even these good selling techniques weren't enough for today's choosy buyers.

It wasn't until the builders began to offer an optional plan at a fixed price that Rolling Ridge sales began to boom.

Says Fabian Alexander: "After we watched good prospects walk away because they needed extra bedrooms or a family room we didn't have, we decided that a rigid plan was a luxury we couldn't afford."

Their architect, Alwyn Cassens, revised his plans to include these two sales clinchers and the builders quoted a firm price for the variations. Under their conventional mortgages, full valuation was given for the additions and only 25% of the increased cost is added to the required down payment.



Many families who want a one floor house balked at the absence of a family room in Rolling Ridge's ranch model. Optional plan (left) lengthens the house 13' fits family room between garage and kitchen. Fixed price: \$1,500.





**Pegwood wall** in garage permits out-of-way storage of tools, outdoor equipment. Wall is displayed in models.

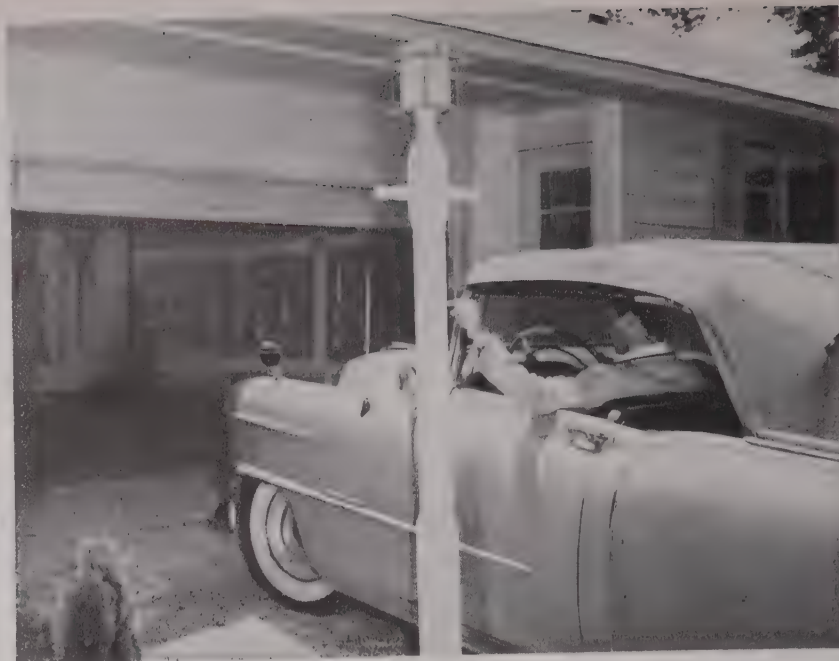
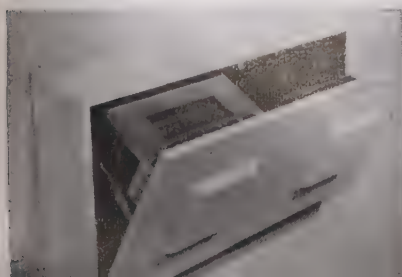


**Double front doors** on split level model have hardware mounted in center, open into generous front hall.



**Dimmer switch** on dining area lighting fixture works like rheostat, permits wide range of light intensity.

**Hi-fi components** are set into recreation room wall, with speakers mounted in ceiling for best sound.



**Post light** also houses key-operated garage door opener. Garage opening can be at side of house on corner lots.

This big \$5,412 equipment package goes

### Here's the itemized list:

Built-in refrigerator	\$349.95
Built-in freezer	349.95
Elevator oven	329.95
Timer and control center	59.95
Exhaust hood, light and fans	127.70
Built-in food preparation center	89.95
Cabinets, cooking top and dishwasher	1,889.92
Air conditioning unit (3-ton)	1,300.00
Hi-fi components	240.00
Electronic garage door opener, post light, pegboard wall, remote control lighting, dining room dimmer switch, single handle faucets, built-in safe, knobless door latches, bath equipment rack	675.00

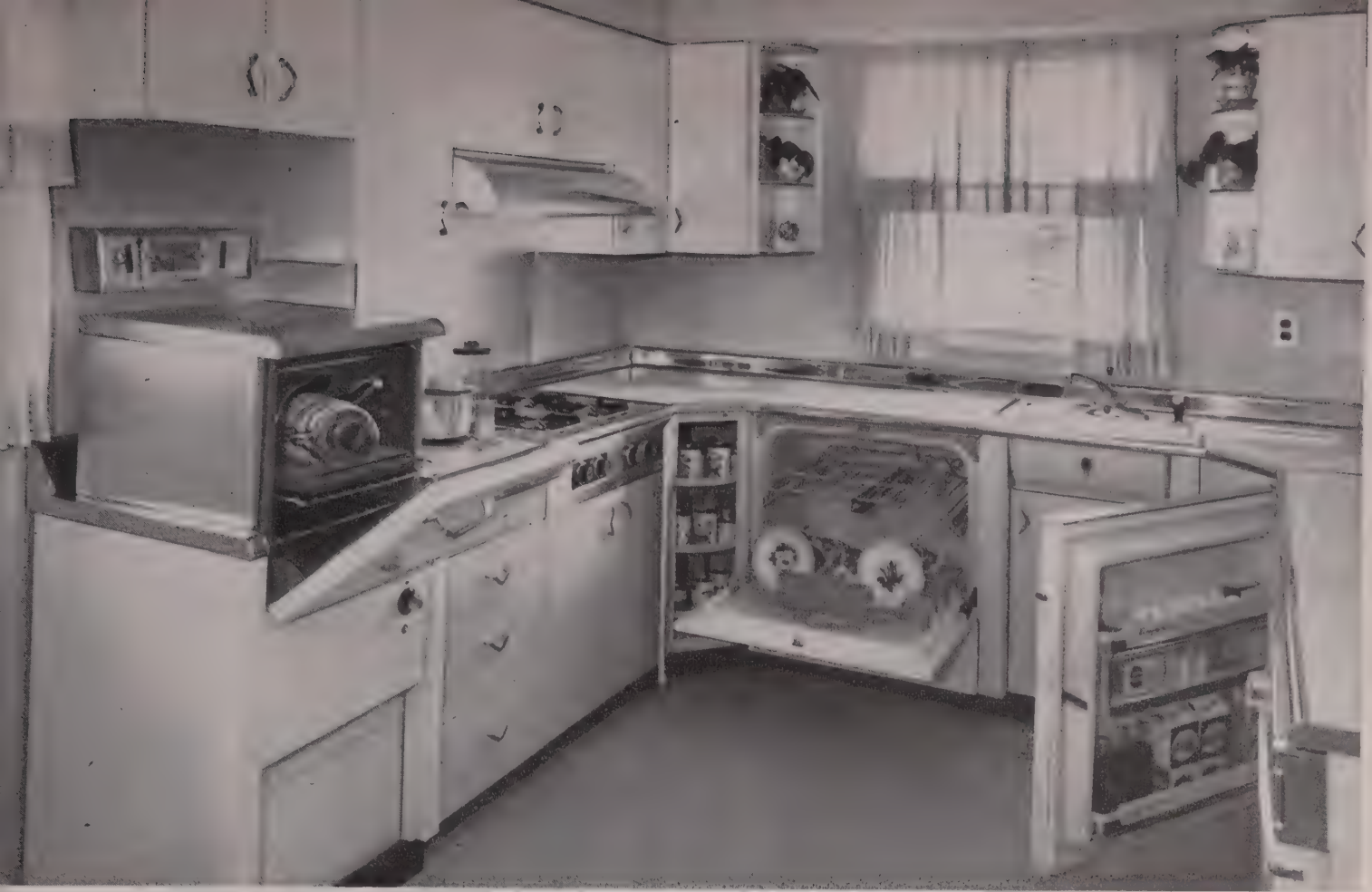
Grand total **\$5,412.37**



**Wall safe** in master bedroom can be used for temporary storage of valuables, is not really burglarproof.

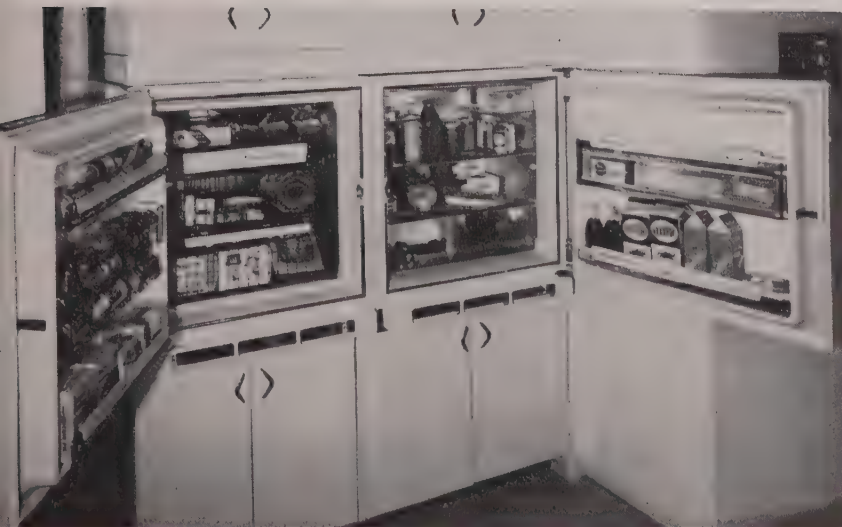
Photos: Peter S. Van Alst; Acker Photo Service





with every Rolling Ridge house

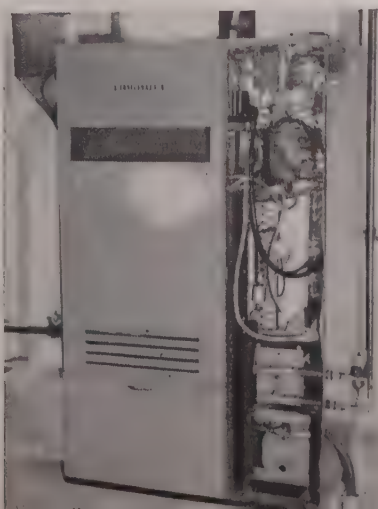
*Showcase kitchen is impressive, even in Rolling Ridge's \$25,000 price range. Builders went all out on theory that most families in this income bracket would purchase this much equipment and its inclusion in house package would be strong sales point. So far, no buyers have asked to have any items left out.*



**Built-in freezer and refrigerator** are at waist height in one-floor model, but are mounted below counter top in split level kitchen.



**Laundry tub** is included, but washer and drier are not. Builder thinks buyers have many brand preferences.



**Air conditioner** is in basement in both models. Gas fired summer/winter unit distributes air through ductwork sized for cooling load./END



# Let's do something about MONEY!

*For six years our industry has bounced from one mortgage crisis to another.*

*For six years we have listened to pious talk—pious talk urging us to have faith in the free market for money, pious talk bidding us be patient and wait for added savings to provide the money we need, pious talk suggesting we follow Mr. Micawber's example and wait for something to turn up.*

*For six years we have listened to foolish talk—foolish talk saying we are already getting too much money, foolish talk calling our present rate of mortgage borrowing a menace to the whole US economy, foolish talk saying we ought not to be asking proportionately more money for mortgages than we got in the Twenties.*

*For six years we have also listened to wild talk—wild talk demanding that the Federal Treasury play Santa Claus to solve all our money problems, wild talk demanding that the Federal Treasury buy through Fanny May all the 4½ % mortgages the banks and insurance companies do not buy, wild talk demanding, in brief, the free and unlimited coinage of 4½ % mortgages at par.*

*For six years we have listened to pious talk, foolish talk, wild talk, but in six years nobody—but nobody—has done anything about it. Right now our mortgage money mess is worse than ever, with no relief in sight.*

*Enough is enough. We have had enough wild and foolish talk. We have had more than enough mortgage money trouble.*



## Let's try to talk sense about money:

*Let's talk sense about money controls* and why today's money controls can hurt us more than they hurt anyone else. Let's talk sense about inflation—how much inflation do we want, if any? Are we getting less than our share or more than our share of the inflation that is going on right now?

*Let's talk sense about what the Federal Government can do for us* and what it is likely to do, which is another way of saying: let's talk sense about what the taxpayers can and will do about paying more taxes to lend us more money. (Answer: they won't.)

*Most important of all, let's talk sense about what we can do to help ourselves.* Let's face the unhappy truth that many of our mortgage troubles are troubles of our own making. Let's stop kidding ourselves that the good fairy will soon come to our rescue. Let's take a fresh look at the needless costs we now borrow to pay. Let's take another look at the 30-year mortgage and why it is reducing the biggest single source of new mortgage money.

*Let's admit we've been living in a fool's paradise* where we could sell terms and financing instead of houses—a fool's paradise where we could always compensate higher costs with slower pay-offs. That was all very well while the money lasted. It was all very well when the banks and insurance companies were selling billions of dollars worth of war bonds to the Federal Reserve, to be paid for, in effect, with printing press money. It was all very well before the Federal Reserve pulled the plug on the bond market.

But what good will easy terms and easy financing do us now the easy money is gone?

## Let's state the problem simply:

1. *Everybody wants to borrow a lot of money. In fact:*
2. *Everybody wants to borrow a lot more than anybody has to lend.*
3. *There is only one common pool of money from which to borrow.*
4. *Our industry wants to borrow more money from this pool than anybody else, and*
5. *Our industry does not want to pay as much net interest as the other borrowers pay. That makes us low man on the totem pole.*

That's simple enough. It's so simple everyone could understand it and everyone could understand what to do about it—if only the figures weren't so big.

But the figures are more than big. They are stupendous, colossal, staggering, overwhelming. They are so big and so overwhelming that sensible people seldom talk sense about them. They are so big that few can see the problem whole—so a lot of people who should know better keep hoping this Brobdingnagian problem can have a Lilliputian answer.

*For example, some mortgage lenders hopefully suggest the problem could be solved if only people would save more money instead of spending it so fast. And some home builders hit a new high for optimism by suggesting that the problem would vanish and disappear if only Fanny May (who, alas! has no money of her own) would just loosen up and lend more freely!*

## Let's look at the figures:

The figures are so colossal they don't mean anything, so perhaps they are hardly worth repeating:

Last year America upped its over-all borrowings by \$50 billion plus.

This year America is adding another \$50 billion.

By 1963 the increase will be running \$70 billion every year.\*

Nobody has that much money to lend. Almost nobody even understands what that kind of money means. So instead of talking about how many dollars we all want to borrow, let's see what we want to borrow enough money to do.

\*So says Mr. Carrol Shanks, president of the Prudential.

*This 8-page editorial was  
written in collaboration  
with home building's No. 1  
economist, MILES L. COLEAN*



## Let's look at the colossal facts that explain the colossal figures:

We want and need to borrow enough money to finance simultaneously the greatest population explosion the world has ever seen on top of the biggest economic explosion the world has ever known.

In a single generation our population is shooting up almost as much as the total population of England and France combined. During this same generation we propose to more than double our whole standard of living. To finance this double explosion:

1. American industry wants to borrow enough money to increase our industrial production in the next five years by more than the total productive capacity of the second greatest industrial nation in the free world.

*Did you know that American industry is spending \$46 billion a year on new plants and equipment? Did you know industry needs an average of \$12,500 new capital to create just one more job for one more worker?*

On top of that:

2. Our own industry wants to borrow enough money to build almost as many houses each year as a whole new city as big as Los Angeles and Philadelphia combined—a city of much nicer, bigger, better equipped homes, a city with a far higher standard of living and housing. And by 1965 we will want to borrow enough money to build a new city each year as big as Los Angeles plus Philadelphia plus Baltimore plus Boston plus Oklahoma City!

*Did you know the mortgage demand by 1965 will top \$50 billion a year, of which at least \$20 billion will have to be new money?*

On top of that:

3. We want our local communities to borrow enough money to provide all the schools, hospitals, streets, parks, sewers, and water supplies needed to supply all these new homes and keep up with the fabulous increase in our population. (The alternative is to send the babies back where they came from.)

*Did you know the bill for new sewer facilities already approved in just 13 of the 48 states will be \$40 billion, with a lot more than that still urgently needed?*

4. We want to borrow enough money to do all this regardless of cost at a time when labor is scarcer than ever and prices are higher than ever!

Does that give you a feel of how much we want to borrow?

## Let's state the problem another way:

*We want to borrow 50% more money in the next five years than it cost to run the Federal Government for the whole 150 years from 1789 to 1939, including the Civil War, World War I, and all the New Deal spending!*

*We want to borrow \$50 billion more than the Government borrowed to fight World War II!*

*We want to borrow more money than the whole assessed worth of the whole US west of the Mississippi River!*

**Here indeed is a problem too big for any little solution. Here is a problem too big for any ONE solution.**



## **This huge problem can't be solved without a huge increase in savings . . .**

To provide all the money everybody wants and needs to borrow, "People would have to save at twice the rate of savings in 1955." So says Carrol Shanks, President of the Prudential.

We can't get anything like that increase in savings unless we *do something*.

*1. Government must cut income taxes hard and leave more money for savings. It must reverse the tax policies born of the depression, when the New Deal set out to discourage savings and force consumption.*

*2. Borrowers must pay more interest, to make it worth while for lenders to save.*

*3. Prices must be kept level. People won't put money aside to spend tomorrow if they know they will get less for their money unless they spend it now.*

*4. New ways to save must be developed. Most saving today is involuntary. For example: manufacturing corporations alone save \$8 billion a year for their stockholders by paying out less than half their profits in dividends. Insurance companies save \$4 billion a year for their policy holders by piling up huge reserves against claims that will not come due for many years. Business saves nearly \$2 billion a year for its employees by putting money aside in pension trusts. The government saves \$11 billion a year from almost everybody by taxing everyone's pay for social security.*

Perhaps the best way to speed up involuntary savings would be to encourage home owners to pay off their mortgages faster (see page 151).

## **But the problem is too big to solve by savings alone . . .**

Let's not kid ourselves that the people will *double* their rate of savings, as they must to meet our money needs by savings alone. Quite the contrary. Instead of increasing their rate of savings, people are actually spending more and more and saving less and less of their incomes. And American business is spending billions of dollars in advertising and super-selling to make sure people keep spending more of their income. Even Mr. Shanks says:

*"Prosperity is the end result of the high spending of consumers, and it would disappear quickly if consumers stopped buying."*

Nobody wants to risk killing the goose that lays the golden egg by cutting spending to increase savings. Nobody wants to finance our needs for tomorrow by cutting consumption for today as the Russians did under Stalin's terror.

The insurance spokesmen were whistling for the wind when they told Congress savings can provide all the money we need. They were indulging in wishful thinking. They may have been facing the realities of money, but they were hiding their heads from the realities of housing.

They were assuming a house is a house is a house, whether it has an inside toilet or not, whether it is dilapidated or not, whether it is fit to live in or not, whether it is located in a fast-growing state or a state that is losing population. They were assuming the American standard of housing can remain anchored (as it has) at the 1925 level while all the rest of the American standard of living continues to double. They have listened to economists who have told them to figure on replacing our present housing inventory at a rate between 100,000 and 150,000 a year.

This is the kind of trap figure men walk into when they keep their eyes so glued to their figures that they cannot see the reality those figures are supposed to represent.



## So let's look at these realities!

The reality is that right now between six and eight million nonfarm families are living in units hardly fit for human habitation—units without private inside baths and often otherwise dilapidated. Does any one really think we can wait 50 years to get these junkers off the market 150,000 a year?

The reality is that America is wiping out poverty so fast that by 1965, according to US Chamber of Commerce figures in constant dollars, we will need six million *less* homes than we already have for families with under \$6,000 a year—and 11 million *more* homes than we have now for families with incomes over \$6,000! And let's remember it takes a lot more money, including a lot more mortgage money, to provide a new home for a \$10,000-a-year family than it takes to provide a new home for a \$3,000-a-year family.

## So the problem is too big to solve without a huge expansion of credit

There's nothing necessarily wrong with borrowing against future savings when present savings can't keep up with extraordinary demands for credit.

Credit expansion brings price inflation only if the credit supply is expanded faster than production is stepped up. If the supply of money is increased faster than the supply of goods, then prices rise. Conversely, if the supply of goods is increased faster than the supply of money, prices fall.

So the faster we step up production to meet our colossal needs and carry out our colossal expansion plans the more credit expansion we can take without inflating prices.

From the days of Menes the Egyptian, every advance in wealth and prosperity has been sparked by a big increase in the supply of money and for credit. America grew to be the richest and most powerful nation on earth by borrowing more than we saved nearly every year for 307 years—from the founding of Jamestown to the outbreak of World War I. We have had continuous credit expansion (and most of the time out-and-out inflation) in this country almost every year since prosperity came back in 1896. The only big exceptions were the tragic years around 1929-1932 and the sharp recessions of 1906-07, 1920-21 and 1937-38.

In the unparalleled prosperity we have enjoyed since World War II there has been only one year when savings were enough to meet the demand for debt and equity funds. (In some years the gap was more than \$10 billion.)

In brief, the question is not whether we want and need credit expansion or whether we are going to have it.

The only questions are:

1. *How much credit expansion (or inflation) do we want?*
2. *Who is to have first crack at the new money so created?*

The answer to the first question is easy:

## We want all the credit expansion we can take without inflating prices

That is another way of saying:

*The more we all do in other ways to hold prices in line, the more credit expansion we can have and the more new money we can borrow to do our job.*

*The less we do to hold prices in line the less credit expansion we can have and the less new money we can borrow to do our job.*

This is exactly the credit policy the Federal Reserve is following right now.



## **Our money problem can't be solved without a better credit facility**

We need a new and better answer to the urgent question of who should get first crack at the new money. We must *do something* to get it.

The stock answer has always been that only short term borrowers should be allowed direct access to money created by credit expansion. It should not be used to finance long term investment.

This is an answer which may suit the commercial bankers. It is not an answer that can satisfy our industry. It is not an answer that can satisfy the customers of our industry or the people who should be customers of our industry.

Until we get a better answer we cannot hope to build enough good houses to provide a good home for every family. Until we get a better answer we can do very little for the eight million nonfarm families now forced to live in bathless and often dilapidated units because there are not enough good homes to go around.

Until we get a better answer we can do little about the 20 million aging homes that are drifting into blight. Until we get a better answer the American standard of housing will continue to fall further and further behind the rest of the American standard of living.

So the livest housing issue today is not public housing, which will soon be a dead duck, killed off by the growing shortage of poor families and the growing surplus of low rent housing (see News index p. 41). It is not middle-income housing, which is a political red herring. It is not the extension of VA home financing, which has been so abused that neither the veterans nor the home builders seem to care much whether it lives or dies.

### **This is the livest housing issue today:**

The livest housing issue today is what can be done with the Home Loan banks and what can be done with Fanny May to get us a bigger share of savings growth and credit expansion.

Nearly 40 years ago Herbert Hoover focused national attention to the need of a better credit facility for home building, and 36 years ago his administration set up the Home Loan Bank system. By now it could and should have grown up to a stature comparable to the Federal Reserve among the credit agencies of our country.

Nothing of the kind has happened. For 36 years the Home Loan Banks have been stunted, first by the depression which stopped building, then by Democratic indifference to this Republican creation, then by the hostility of the big institutional lenders, finally by the foolish feud between the savings and loans and the home builders, who backed a rival credit facility in Fanny May to serve as a dumping ground for unattractive mortgages and a prop for below-the-market interest rates.

The net result is that neither the Home Loan Bank system nor Fanny May commands enough respect and neither the Home Loan Bank system nor Fanny May is doing the job we need done for us.

Right now the US Savings & Loan League is taking the lead to transform the Home Loan banks into a major instrument for making more savings available to lend for better homes. Such a system could be as important to the mutual savings banks as to the savings and loan associations. It could meet the warehousing needs of the insurance companies; and it could be the best thing that has happened to the home builders since FHA. It's high time the mutuals and the home builders got smart and teamed up with the savings and loan forces to make the Home Loan Bank System just exactly the credit facility we need.

Incidentally, this may be the logical place for the function now sporadically performed by Fanny May.



## Our money problem can't be solved unless and until we help ourselves

It can't and won't be solved until we recognize that many of our money troubles are troubles of our own making, troubles the insurance companies can't solve for us, troubles the banks can't solve for us, troubles the savings and loans can't solve for us, troubles FHA can't solve for us, troubles the taxpayers won't solve for us. They are troubles we can't even expect other people to worry much about until we *do something* about them ourselves.

Already we are getting a bigger share of the country's savings than ever before.\* Already we are getting more inflation than we can stand, for our inflated costs are pricing us out of the market. (Used houses are selling better than ever, but new house sales are lagging from coast to coast in the richest year America has ever known.)

If we're still having money troubles in spite of all the prosperity, all the savings, and all the inflation we are getting, it's high time we began wondering how much of the blame should fall on our own shoulders.

The Lord helps those who help themselves. Let's see what we did to get into so much trouble, and then let's see what we can do to get ourselves out.

\*Except for those never-never days when the big lenders were cashing in their 2¼% Government bonds to buy 4¼% Government guaranteed mortgages and the Federal Reserve was running its printing presses overtime (so to speak) to help them make the switch.

## The big reason we are in trouble now is things were too easy in 1947-1951

In those years of critical housing shortage and easy mortgage money everything sold. In those easy years costs hardly seemed to matter if you could just get FHA to cover them in its appraisals, so we let our costs get away from us and we've never gotten them back in hand. In those easy years we learned to hide increased costs under easier terms. What difference did it make if your price went up from \$10,000 to \$12,000 if extending the mortgage from 15 years to 20 years made the monthly payment lower on the higher price? And if costs went up again, why not hide them even deeper by borrowing still more money and making the mortgage run for 25 years? Or 30 years? Or perhaps 40 years?

## Our money problem can't be solved as long as we borrow more than we need

That makes three big reasons we must get our costs in hand.

Reason No. 1: We are pricing ourselves out of the market.

Reason No. 2: The Federal Reserve rightly views our price inflation with alarm.

Reason No. 3: We can no longer borrow money to waste.

In the easy money days we forgot about costs. Now our costs have caught up with us, and our industry's biggest problems are (1) where to find buyers willing to pay those costs, and (2) where to borrow the money to finance those costs.

All of us know plenty of ways to cut our costs and build better houses for less. It's high time we got together to *do something* about them.

*It's high time we got after the senseless waste of money entrenched in our local building codes. It's high time we got after the needless inflation of land prices (best and quickest way to do it: make land carry a bigger share of the local tax load and ease the tax burden on improvements). It's high time we got after our labor costs (other industries insist on higher productivity for higher wages). It's high time we got after our materials handling costs (they eat up 25% of the cost of a house).*

*It's high time we got after the waste involved in hundreds of uncoordinated sizes. It's high time we were all building with parts instead of pieces. It's high time we were all using prehung doors, preglazed windows, preprimed millwork, precut lumber, prefitted hardware, preassembled plumbing, preassembled trusses. It's high time we got after hundreds of other neglected ways to build better for less, so we won't have to borrow so much.*

Until we get our costs in hand we are hardly ready for more money. Right now the first result of more money would be more inflation in land prices, more inflation in material costs, more inflation in labor costs—and more houses priced out of the market.



# Our money problems can't be solved until we turn our money over faster

Biggest single source of money for new mortgages is the pay-off of old mortgages. In a less explosive housing market (i.e., if we didn't have to build more houses like crazy to keep up with today's population explosion and today's income explosion) those pay-offs alone could provide just about enough money to equal the demand for new mortgages.

Today's extraordinary mortgage needs make it important as never before to *do something* to speed up those pay-offs and get the money back faster, so we can lend it again and borrow it again.

But the fact is we are all doing many things to make pay-offs slower instead of faster. For example:

Most lenders penalize prepayment, in some way and FHA adds its own special 1% penalty.

Many lenders refuse to let mortgagees who get ahead on their monthly payments reborrow the prepayment in case of need. Some lenders, in fact, hold a borrower who has prepaid six months in default if he misses the next payment.

And the home builders fight like stuck pigs to get mortgages extended to 30 or more years instead of the 20-year term on which FHA started.

*The 30-year mortgage makes our money problem worse instead of better, for three reasons:*

1. It keeps home buyers from building up enough equity in their homes to trade them in for the down payment on a better house;
2. It makes us pay bigger discounts to get mortgage money, for lenders don't like to tie their money up for 30 years for the same yield as for 20 years.
3. It slows down the flow of amortization money back into the mortgage pool.

Every year for the first 20 years the amortization on a 30-year mortgage puts 48% less money back into the pool than the amortization of a 20-year mortgage.

*The family that borrows \$10,000 on a 30-year FHA or VA loan pays off only \$1,995 in the first ten years—if it lets the mortgage run that long. Actually the average FHA mortgage is refinanced (often into a bigger mortgage instead of a smaller one) at the end of 8 years and 4 months (i.e., before the 30-year monthly amortization hits 16%).*

## Home buyers don't need 30-year terms

Right now some 20 million car buyers are paying off \$700 a year on new cars priced at \$2,000-\$3,000; another 20 million are paying off \$200-\$300 a year on used cars priced under \$1,000. It's nonsense to say home buyers can't pay off more than \$200 a year to buy a new \$10,000 house.

Once again the problem starts with VA and FHA.

The biggest reason home builders fight for 30-year terms is that FHA and VA so word their minimum income requirements that slower amortization makes millions more families eligible to buy. FHA and VA thus penalize saving by confusing amortization with depreciation and counting every penny paid off on the mortgage a cost instead of a saving! So small wonder the home builders want slower and slower pay-offs.

It is high time VA and FHA stopped discouraging saving in this way. Their minimum income requirements should consider not amortization but depreciation. In that case the home builders might ask to have the depreciation period extended from 30 to 40 to 50 or even to 60 years, but they would have little reason to object to 20-year terms and many good reasons to favor them. On a 50-year write-off basis the depreciation on a \$10,000 house would be \$200 a year. That is almost exactly the same as the first year amortization on a 30-year \$10,000 mortgage, so there need be no difference in the minimum income required to buy the house.

The only difference would be that the minimum income requirement would be the same no matter how long or how short the term of the mortgage, so builders would no longer have good reason to pressure for the slower pay-offs that add so much in other ways to their money troubles.





1. Terrace gets 65' of length on a 50' lot by following pattern of long walls and angles. (See heavy line on plan)

## Here's how to make a 50' lot



ARCHITECT: Aaron G. Green, AIA  
OWNERS: Mr. and Mrs. Harry Reif  
LOCATION: Los Angeles, Calif.

2. Overhang with unbroken line stretches along terrace, carries view to fence at end of lot.



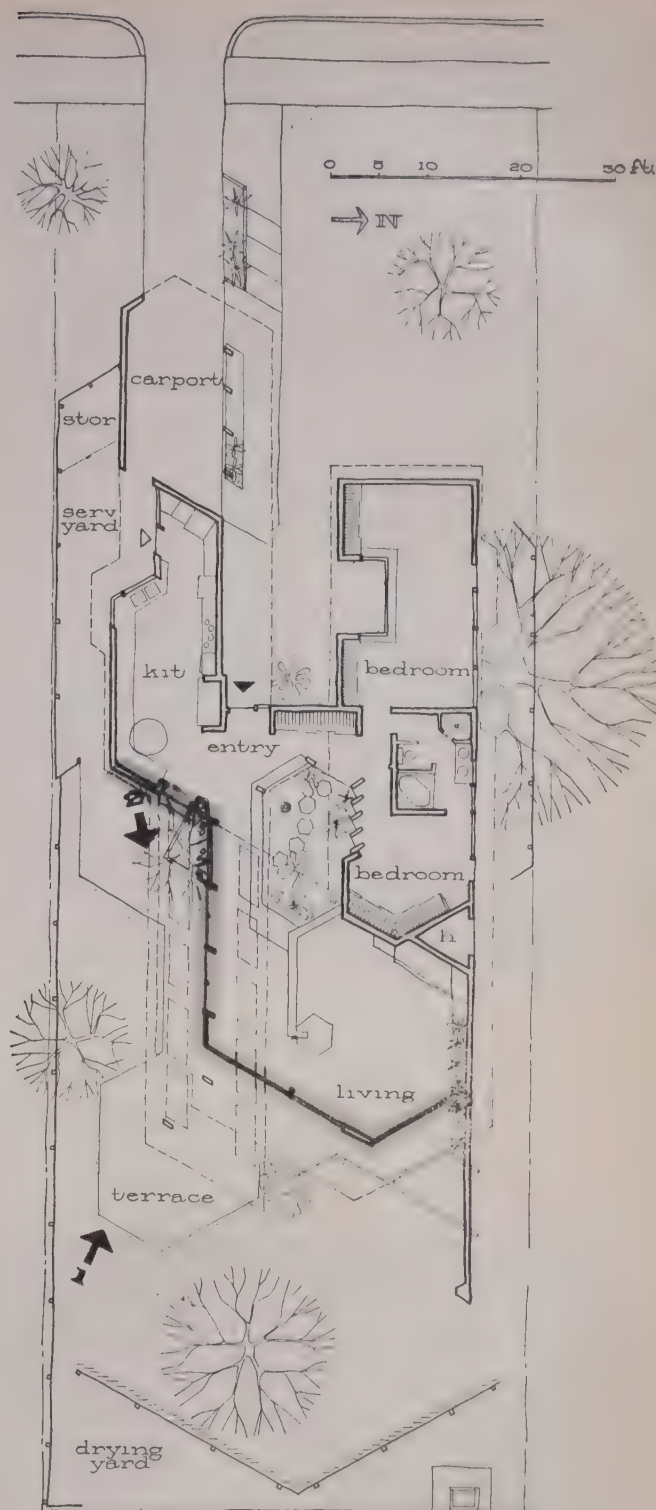


Photos: "House Beautiful"—Maynard Parker

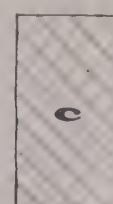
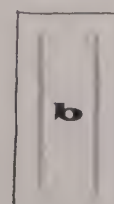
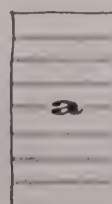
## really spacious

The obvious way to get plenty of space within the limits of a long, narrow lot is to turn the house the long way of the site, but architect Aaron Green went a step further when he also angled the end walls to lead the view from one area to another.

So instead of long narrow rooms which repeat the shape of the lot, here each room is angled to catch a view of the next, and of the small garden court at the center. Then to make even more of the lot, fences are used to give the outdoors the privacy of another room. With many floor to ceiling glass walls, the view extends to the farthest fence, creating extra space and privacy.



**Plan** of house (above) shows how, by combining long walls and angles and using fencing for privacy, the architect makes both house and lot seem spacious. When lot is long and narrow (diagrams below), turning house shortest distance limits space. Turning house long way increases possible length; angling walls continues view farther, makes house and lot seem larger.







**3.** Open front door shows how view carries through house for entire length of lot

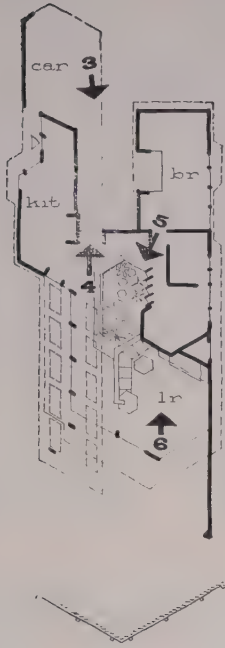
This entrance emphasizes distance and privacy . . .



← **4.** View from entrance (left) shows how it is removed from street to increase sense of privacy. Location at center of plan gives easy access to all parts of the house.

**5.** Living room (opposite) seems larger and lighter → because of extra view of garden court, visible past handsome fireplace. This landscaped view from center makes 50' lot seem much larger than it is.





6. Hexagonal garden court (right) brings light, air  $\rightarrow$  to center of house and creates immediate impression of a series of indoor-outdoor areas.



and tiny garden court gives most rooms a two-way view

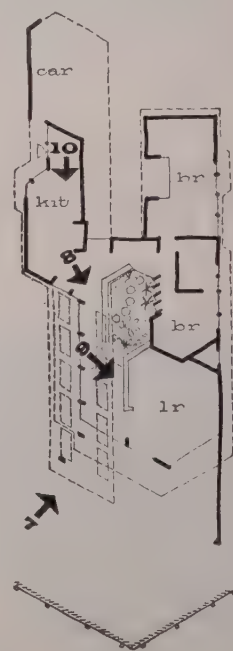






**7.** Floor to ceiling glass walls make actual living space as large as terrace and living room combined.

Big glass walls are skillfully angled



**B.** View at entry past garden court, (left and opposite) shows how rear half of lot combines with house to form one large, private living area, with distant fence as fourth wall. Repetition of greenery blurs indoor-outdoor separation.





9. Diagonal walls of living room point outward to terrace, put no stop to sense of space.



10. Kitchen-dining area opens to terrace, so view is twice as long as room and extends to fence.

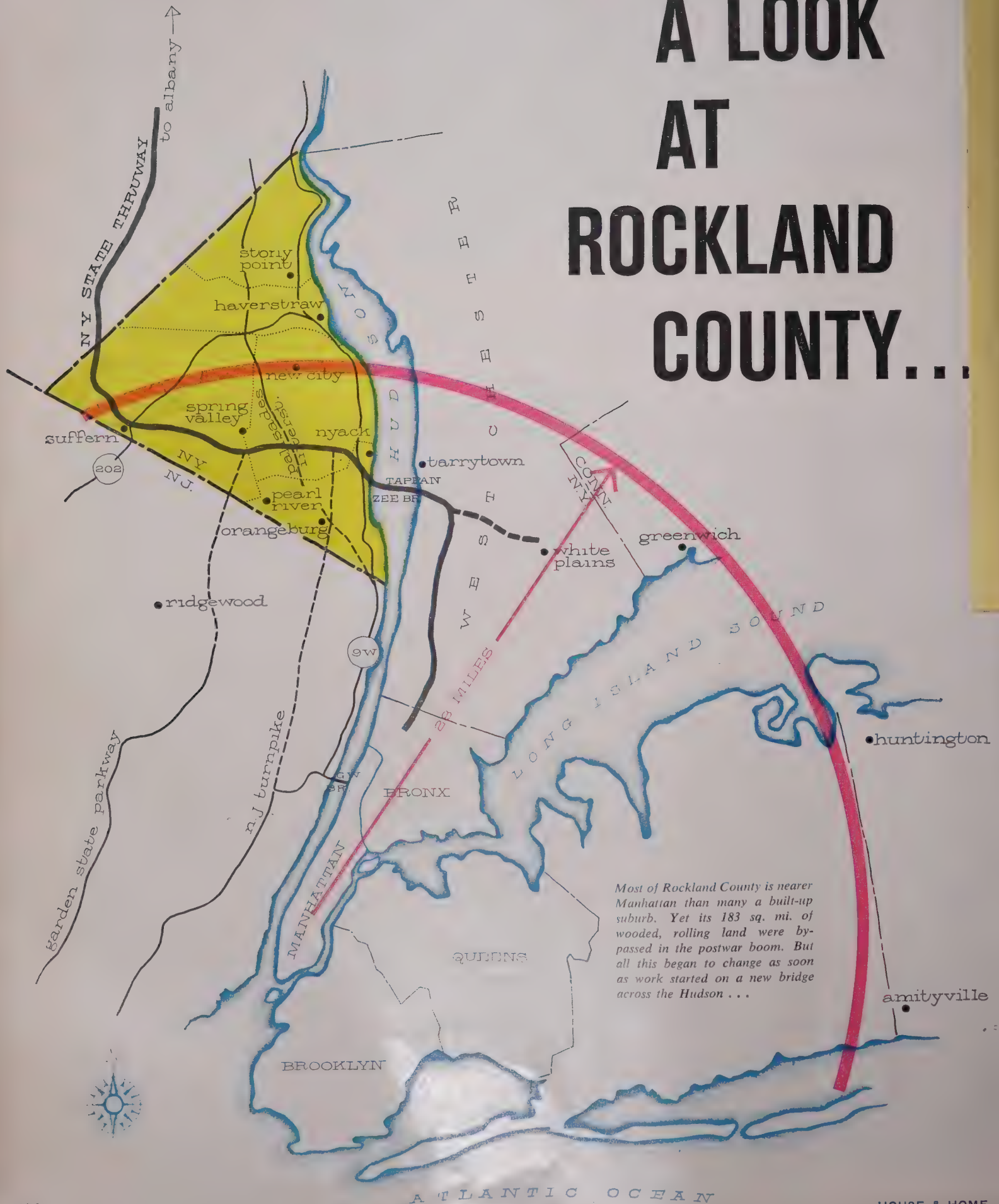
to catch long views wherever you look

Photos: "House Beautiful"—Maynard Parker





# TAKE A LOOK AT ROCKLAND COUNTY...







**...see what's happening in the East's newest housing boom**

**...see why the public gets sore at the home building industry**

**...see why other people make the really big mistakes**

**...see what it would take to solve most of the tough problems**

**First step in Rockland story:** *New York Thruway's now completed Tappan Zee Bridge opens up hard-to-reach Rockland side of Hudson to Manhattan commuters.*



# This is the situation in Rockland today:

Few people inside or outside the county foresaw what would happen in Rockland.

Six years ago the county's population totaled less than 90,000. It was largely a rural county, almost as remote from metropolitan New York as other up-state areas. Only a few hardy commuters traveled to New York City.

Many people were blinded by hope that the *status quo* would remain. Those who knew better could not believe change would come fast. Some members of the home building industry are still short-sightedly bearish in their planning.

Now the character of the county has changed. Nearly 2,000 houses were built in Rockland last year. Population has climbed to 108,000. More and more industries have come in, boosting plant payrolls from 8,000 to 12,000 employees. Many more plants are expected.

An acre that cost \$1,000 three years ago costs \$3,500 today. This is partly because planners have

carefully zoned much land out of the market, and partly because long-time land owners who see prices spiraling upward refuse to sell today.

## Builders are moving in

All this has changed the home building industry greatly. Most of the new houses are being built by newcomers from Long Island and New Jersey. Nearly all have had to change their methods, for acres are hard to convert into lots in aptly-named Rockland. Lenders, architects and suppliers have flocked in, too, as word of the boom has spread.

Before the boom, most builders were small, and most of them are going on as before (though they find it harder to buy the single lots they want to build on). But the bigger operators already include a few local men who have taken advantage of the opportunities.



N. Y. Thruway provides new road leading from bridge to all parts of county



New factories like this US Gypsum plant near Stony Point are both cause and effect of the boom





New houses are going up all over the county today as local building industry members and johnny-come-latelies grasp opportunity





*School board member argues at a planning board meeting, urges fewer permits be issued to builders because old schools like this one (left) are overcrowded.*

Felipe Chano



*Native hybrid*

## This is the way the boom looks



*Old house is fixed up. Boom centers around new homes with no trade-ins.*



*This is typical split-leveling*



Felipe Chano

*Some custom houses go up, too*





*Design and merchandising techniques follow earlier booms*

## to startled Rockland residents

Felipe Chano



*The boom goes on and on*



*No zoning here*



*Septic tanks drain into streets*



*Some people call this a bulldozed desert*



*Contemporaries like this are in minority*



## Zoning: too little, too late

Large areas of Rockland are still unzoned.

Oldtimers resist zoning most, maintaining stoutly that "nobody's going to tell us what we can do with our land."

The day inevitably comes when the situation gets out of hand. Town facilities get overloaded. Stores and houses go up next to each other and choice land turns into a drainage basin.

When zoning comes, as it always does, members of the building industry often are caught midway in their ventures.

Many building men take a buffeting as officials waver between courses. This has caused bad blood between industry members and local officials. A kind of guerrilla war goes on that could have been avoided by proper leadership within the community. Yet County Planning Director Richard May Jr. has gained national attention for a new type of zoning he has introduced.

Most zoning maps show only what can be done with land today, but May's shows how it can be used both now and in the foreseeable future. He aims at three objectives: 1) to restrict growth to land around each existing village, 2) to retain a countryside aspect between built-up areas, and 3) to prevent scattered growth too far from existing facilities.

### How X-zone plan works

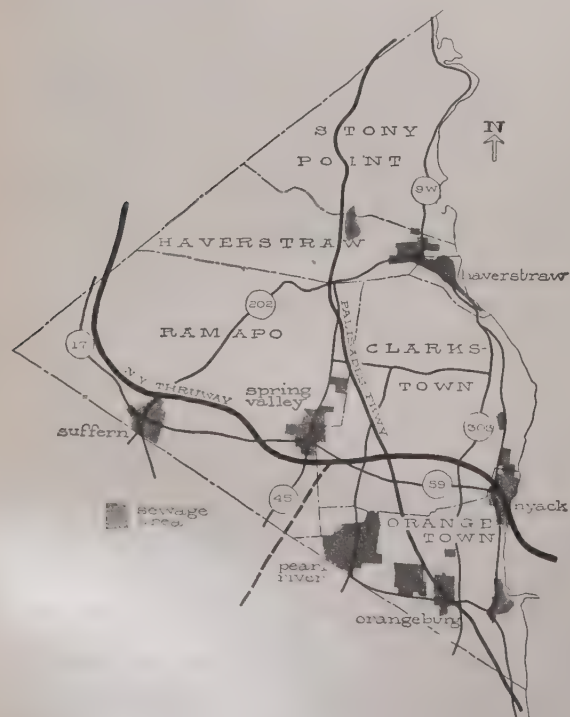
To accomplish these aims, he provides a so-called X-zone surrounding each village. This zone requires acre lots until the village is built out to the zone. Then X-zone lots can be down-graded to one-third-acre lots.

This plan provides for orderly growth, but it has some disadvantages. It limits the acreage available to home building, thus drives up the price of land useful to tract builders. And it does not provide for half-acre lots, which many in the industry want to use.

# Toughest problems are zoning, sewerage...

## Sewers were voted down

If septic tanks are failing in parts of Rockland County, local authorities can pin most of the blame on themselves.



Sewerage area in Rockland serves most larger villages, but only about half of all existing homes.

They could have had a county-wide sewer system but voted it down five years ago.

Even now the county is putting this No. 1 problem almost last on its "must" list. A month ago the county supervisors finally got around to voting money for a study to find where sewer lines should run, if and when they are ever built, and how much they might cost. But this still leaves public sewerage years away for most of Rockland. For one thing, a large sewerage system cannot be financed in New York until the state legislature passes a special act permitting the county to set up a sanitary district with powers to finance such a system. Although this matter relates closely to health, almost no one has given much attention to it.

Meanwhile, houses having septic tanks must be built on lots of at least 15,000 sq. ft. in most of the county. This limits new houses to lots costing about \$3,500, sometimes more.

### Related drainage problems mount

Like many another boom area, Rockland is suffering from increased drainage problems. The county planning board itself has reported: "The handling of surface water drainage in new subdivisions has become one of our most difficult problems [and] cannot be dealt with on a piecemeal basis."

Thus the home building industry gets blamed for drainage woes which could be prevented by the kind of over-all engineering guidance that only the county can provide.



Felipe Chano



One-room school for 75 children is 96 years old

## and school shortage

### Earlier planning is needed

School boards tend to make the home building industry the scapegoat of the suburbs.

The little red schoolhouse above is one of many in the county where teachers still teach two or more grades in overcrowded classrooms. Construction of new schools like the one below have not kept pace

with demand. These two examples are in a district that has kept up with its needs more than most in the county. Rockland has 27 school districts with 27 different dilemmas, each of which affects home building a different way.

In one way, nearly all school boards are alike: they tend to blame homebuilding for their crowded schools and mounting school taxes. Nine times out of ten, when the industry finds itself in a zoning fight, its chief antagonist is a school board.

### Boards are often untrained

As in any fast-growing area, these boards are composed of public-spirited, hard-working and long-suffering members. Few are well trained for their part-time duties. They have no funds or staffs for research. They are subject to many pressures and day-to-day crises. It is not surprising then that they postpone long-range planning and try to induce town zoners to take them off the hook by forbidding more home building.

When local planners give in to school board demands to slow down home building, as the equally harassed planners sometimes do, the result most often takes the form of upzoning.

### The effect: higher land costs

When land for home building is restricted, the price of remaining developable land goes higher. Thus, when school boards do not keep pace with demand and planners slow the pace of home building to that of school building, the problem of high land costs increases.

By postponing efforts to get new schools fast, school boards compound the problem. Exodus from the city is bound to result in new homes in the suburbs. Fighting the building industry will not solve the boards' problems. The boards' only wise course is to push harder and sooner for the new facilities which it is their prime duty to provide.

*Newest high school will be completed in fall, four years after it was first planned. Another took seven years to plan and build*







Ben David

*Builder Lester Robbins' Sandra Construction Co. is sponsoring Rockland's biggest project (see opposite page). Here's what he says he has learned from studying Rockland's mistakes and successes:*

## The industry could take these five steps...

### 1. The industry needs to act like an industry

"Home building is the biggest business in booming Rockland, but you could never tell it by the way it acts. Our industry simply hasn't grown up, and we keep repeating too many of our earlier mistakes. Equally serious, we have found no effective way to answer unjust criticisms and to mobilize the reserves of good will that should be ours. Part of the trouble is that the different branches of our industry tend to go it alone instead of acting as a team where each member can contribute his specialized skill. Too much is left to the builders to handle alone. What the industry needs more than anything else is to help itself."

### 2. The industry needs to work closely with planning officials

"The better the zoning, the better for every segment of home building. Houses are easier to sell in a well-planned community, where buyers are assured they will be near schools, churches and shopping centers—and where they won't have to worry about what will go up on the vacant lot next door. The smallest member of our industry must rely the most on good planning, for he, unlike the bigger operator, can substitute nothing for it."

### 3. The industry needs to help school boards

"No problem plagues the US home building industry more than that of schools. What compounds the problem is that harassed school officials often panic easily. This means the industry as a whole should meet school boards as well as other bodies involved in the problem and attempt to provide mutually satisfactory answers to the problems. Often it can be shown—as Sandra did—that the impact of many new houses will be much slighter than had been suspected."

### 4. The industry needs to create a way of life, not just shelter

"People don't buy houses today just to keep out of the cold and rain. They want easy, informal family living indoors. They want provision for outdoor living. They want a good neighborhood. Some of these things only our industry can provide. Others are the duty of local government, but often our industry must help local officials provide them."

### 5. The industry needs to live up to its own best standards

"No member of our industry should be so short-sighted as to fall below the level of good current practice. Yet too many of us only ride along with a boom; too few make the most of it. We should increase our effort to achieve a high standard in design and to find better construction techniques so we can provide more attractive houses at lower costs."



# to solve its problems

Although Robbins' big Rockland project (1,513 houses, 407 apartment units) is only a plan on a piece of paper now—and still unnamed—it shows how Rockland's lessons can be applied.

The plat at right is *not* what Robbins' Sandra Construction Co. had in mind when it paid \$2,501,000 last fall for the 691-acre tract.

## Opposition came quickly

As soon as the Sandra group bought the property (the Army's Camp Shanks during World War II), they ran into trouble. Some people opposed any new houses; school boards sought to have the tract zoned for larger lots; town officials hinted they would ask for free community facilities.

Instead of slugging it out, Robbins' group decided to work with local boards and see if each side couldn't help the other. The first Sandra step was to make sure its own team was complete. Robbins, who has built 7,000 houses, had the building know-how. His partners included a lumber dealer and a realtor. In rounding out this team, Sandra retained Architects Charles Warner, Walker Field and Danforth Toan, well known locally, and Consulting Engineer Michael Burris of nearby Englewood, N. J.

Sandra made clear to the Orangetown planning board that it wanted to cooperate on all problems, but insisted that school issues be decided as far as possible by the planning board. This reduced the builders' need to negotiate on two fronts at once.

## Both sides learned and traded

In give-and-take meetings with the planning board, Sandra agreed to provide land for schools and other facilities if the planners would allow it to build on enough smaller lots to compensate for the land given up. The board accepted this principle on the advice of County Planning Director Richard May Jr., whom it consulted throughout. May and his staff actually worked out the details of Sandra's approved plat.

Sandra and the town planners both feel the resulting plan provides a self-contained community with uncommon appeal to a wide variety of buyers. (Houses priced at \$15,000 to \$22,000 will be built on lots ranging from 8,000 to 20,000 sq. ft.) The plan gives Sandra as many lots as it originally asked, even though the builder will now devote 120 acres to parks, schools and other facilities.

Last minute school board opposition was overcome by three moves. Sandra agreed not to build before 1958-59 in the southern third of its tract where one school district would be most affected. Sandra also offered to build a school to rent and eventually sell to this district. And Sandra introduced a tax study which showed local fears of steep tax increases were groundless.







Entrance to development is bordered by this large sign and a botanical garden. Developers are building a ten-acre shopping center, have land set aside for schools, parks and churches. Photo opposite shows typical landscaping.

# This project's big appeal is in its landscaping

**B**uilder Ross Chamberlain knows that a handsomely landscaped model is a merchandising natural.

At Foothill Farms, Chamberlain's new 1,160-acre subdivision near Sacramento, he makes a big point of the appeal of built-up, built-in outdoor living.

What Chamberlain actually sells, however, is a three-bedroom, two-bath house set on a 60' x 100' lot—he gets his buyers to put in their own landscaping!

Chamberlain uses six model homes and gardens to help tempt prospects and each house and lot is decorated and landscaped as though a family were actually living in it.

Buyers who see these models—priced from \$12,250 to \$17,275—can picture themselves in Foothill Farms, living like the “typical” families around whose day-to-day activities the models are designed.

## Here's how Chamberlain merchandises

With each house Chamberlain gives away a 42-page landscaping primer written by Landscape Architect Douglas Baylis. Based on soil conditions at Foothill Farms the primer shows owners how to plant their lots and develop gardens and outdoor patios.

Foothill Farms maintains a supply yard where owners get nursery plants and materials at a cost far lower than they could buy from greenhouses and lumber yards. The supply yard also rents heavy equipment for tilling soil and putting in paving. The yard, combined with an ingenious package of outdoor built-ins like attachment points for trellises and screens and outlets for lights and appliances, spurs owners to fix up their lots. To help, Doug Baylis gives owners free advice.

Good merchandiser Chamberlain claims that with today's emphasis on outdoor living, this scheme makes sense. With his first 300 houses already sold buyers seem to agree. He plans to build at the rate of 500 a year.

By 1965 when the final total of 5,500 houses planned for Foothill Farms has been reached, Chamberlain is confident that sales and land values based on owner improvement will more than compensate his original outlays.

“In time,” says Chamberlain, “everyone should be better off: the land developer, the builder, the banker, the mortgagee and most important: the community as a whole.”

BUILDERS: Ross Chamberlain, Fremont B. Hitchcock  
LANDSCAPE ARCHITECT: Douglas Baylis  
DECORATORS: Frances M. Baer and Peter Rocchia  
LOCATION: Sacramento, Calif.









**Model house** shows one way builders introduce planting on street side. Redwood fence, low bushes give a finished look to house. Builder Chamberlain selected trees.

Landscape appeal begins at the street,

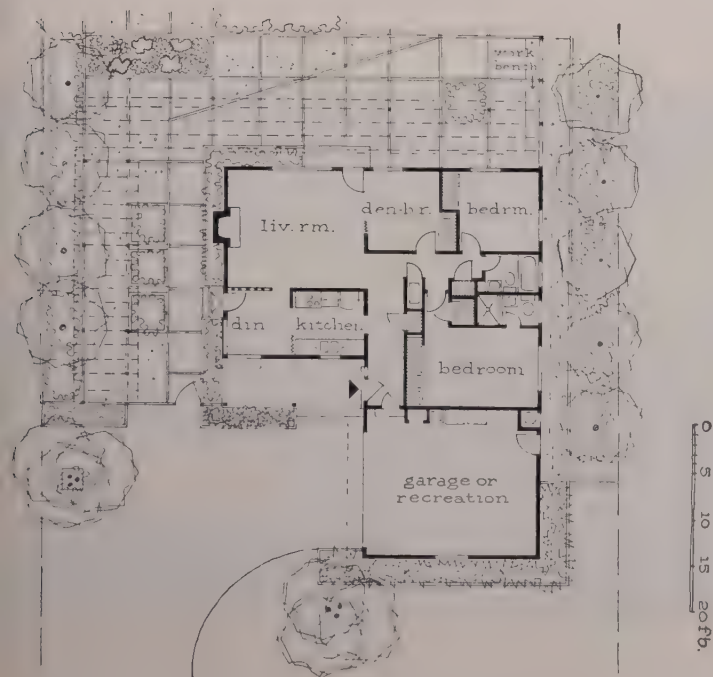
**Patio view** is good example of how models are planted for maximum enjoyment of outdoor space. Screen at right separates this yard from the next to give complete privacy.







spreads out all over the lot



Plan shows how garden is extended right around the house, with maximum outdoor areas at the rear. Even smallest houses have two baths. Because of conservative Sacramento market, Chamberlain built modified contemporary design.



**Grid system**, described in buyers' landscape primer, is basis of each garden design. Three foot modules defined by 2x4 headers are filled with plants, paving or flowers.

**Lath shelter** is one of many sun shades builders show. Garden theme is carried down the long path by potted plants suspended on a screen, raised beds at left.





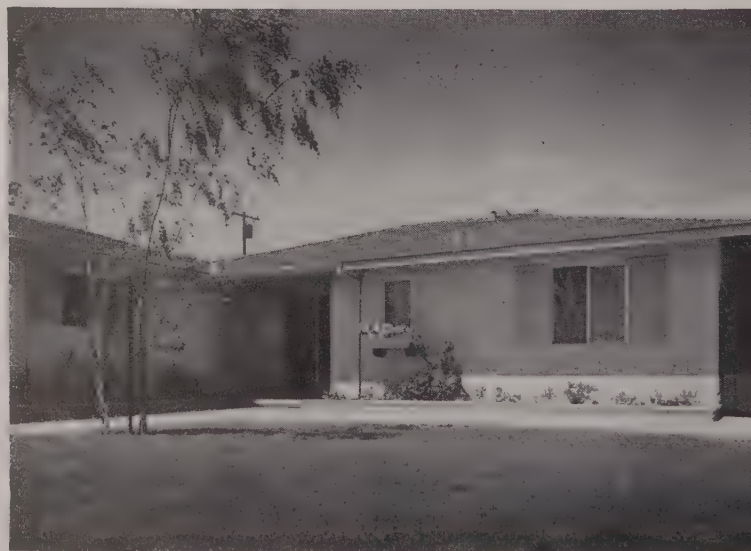


*At night, wide wooden deck becomes an outdoor living room for informal entertaining. Builders put in electrical outlets so porch can be lighted after dark. Buyers' guidebook tells how to make hanging lanterns and the benches along the front of the deck.*

This model makes a feature of night and day,



*During day, deck is playground for children. Overhang on this house is partially closed, partially open so owners can have both sun and shade without leaving the porch. Model was designed for a couple with three children, has play equipment and toy storage.*



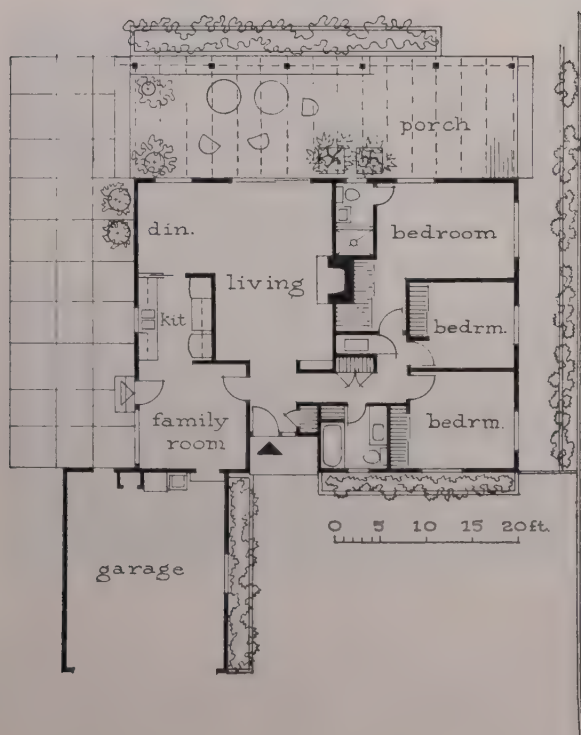
*Corona model is popular with buyers. Garage can be turned into room. Builder provides built-in support for storage deck. Plan (opposite) presents a clean front to the street, turns living areas to rear to give as much outdoors space as possible.*





**Living room** has its own view of the garden. Wide doors open onto the deck to make one large indoor-outdoor area. Tubbed plants around the fireplace carry indoor-outdoor theme one step further. High fence at the rear property line screens garden and house from its neighbors.

## indoor-outdoor living



**Letters** and a set of keys on hall table are typical of the way Chamberlain personalizes his models. Prospects get a feeling they are seeing houses where people actually live. It helps them identify themselves with project.



**Children's room** is furnished inexpensively with camp stools and a painted chest that can take hard wear. Double-deck bunk helps conserve space in a small room. Furnishings were planned for family on tight decorating budget.



Here's Chamberlain's system:



House is sold minus landscaping, ready for owners' work.



Company yard sells nursery stock, shelter materials at rock-bottom prices. Local merchants don't object, say their related sales have jumped since project opened.



Expensive tools are rented from yard.



"Sweat equity" is Chamberlain's name for owners' work program. "People learn how property improvement boosts land value," he says.



Ross Chamberlain, left, plans 1957 development at Salt Lake City like Foothill Farms. Past building ventures included partnerships with Dave Bohannon, Andy Oddstad.

Douglas Baylis, right, was landscape architect for model gardens, wrote guide book for owners. He gives owners free advice about planting.



Swimming pool is not hard for owners to put in because builders provide extra connections in the water and sewerage lines. They also include a T-outlet for gas so pools can be heated, fix wiring outlets for outdoor lights. Baylis' landscape book tells owners how to make tree tub and canvas shelter screen.

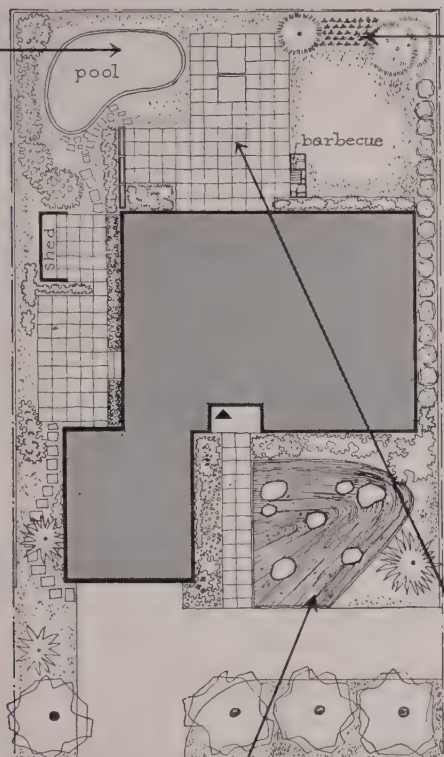
Here's how the system  
helps owners make same size  
lots look different



Sand and boulder garden is popular lot treatment for owners who don't want to do much planting. Appearance of lot is also affected by addition of triangular reed roof shelter. Owners can buy materials from corporation yard for about \$120. Light under ridge pole takes advantage of builders' provision of outdoor wiring.



Composite plan shows how these four gardens can be fitted on the lot.



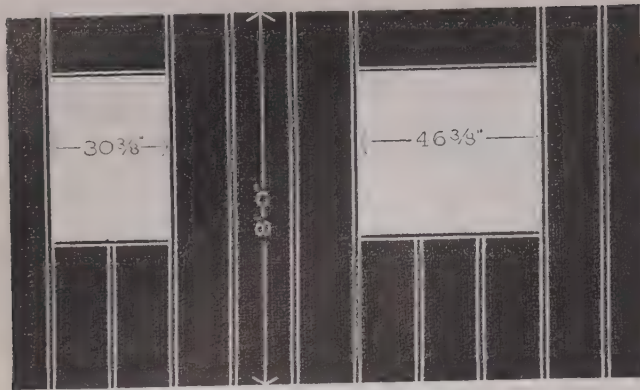
Large garden makes full use of lot and of materials from company yard. Owners get as much free sand and gravel as they can carry away, learn from landscape book how to lay brick paving, set out plants and shrubbery to make each lot distinctive. Builder provides concrete piers that make it easy for owners to put in fences.

L-shaped garden utilizes grid system, fills in modules with bricks. Here, newly-started vines are trained on arbor posts, bamboo strips alternately cover bays. Garden is divided into two zones with a translucent screen windbreak. Storage cabinets for equipment are built-in along rear fence. All homes are planned for easy additions like this arbor.





They want only two widths . . .



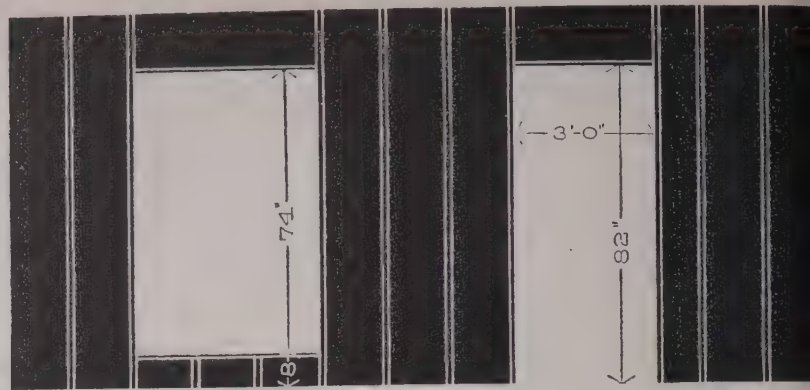
**30 3/8" for studs 32" o.c.**

Last year's Round Table proposed four other standard widths to fit studs 24", 64", 80", and 96" o.c. The Research Institute decided not to ask so many standards.

**46 3/8" for studs 48" o.c.**

Below you can see how Dr. Lendrum, Director of the Small Homes Council, suggests using these 30 3/8" and 46 3/8" windows to fit wider modular openings in the studs.

. . . in only five heights lined up at the top with



**74" for picture windows**

This gives an 8" minimum sill—to permit registers below. This is close to the Round Table's 72" suggestion. Actual sill would vary with window type used.

**6' 8" for doors**

The Round Table had suggested both 6'8" and 7', with 7' preferable. The Research Institute decided on a single standard. Most doors are already 6'8", and the single door height makes window standardization easier too.

## ROUND TABLE result:

# Builders call for standard windows . . .

Here is big news about window standardization—big news growing out of the two-day Round Table jointly sponsored by the Research Institute of the National Association of Home Builders, the American Standard Association and HOUSE & HOME (Jun. '55).

The Round Table tentatively proposed standardizing the builder's house win-

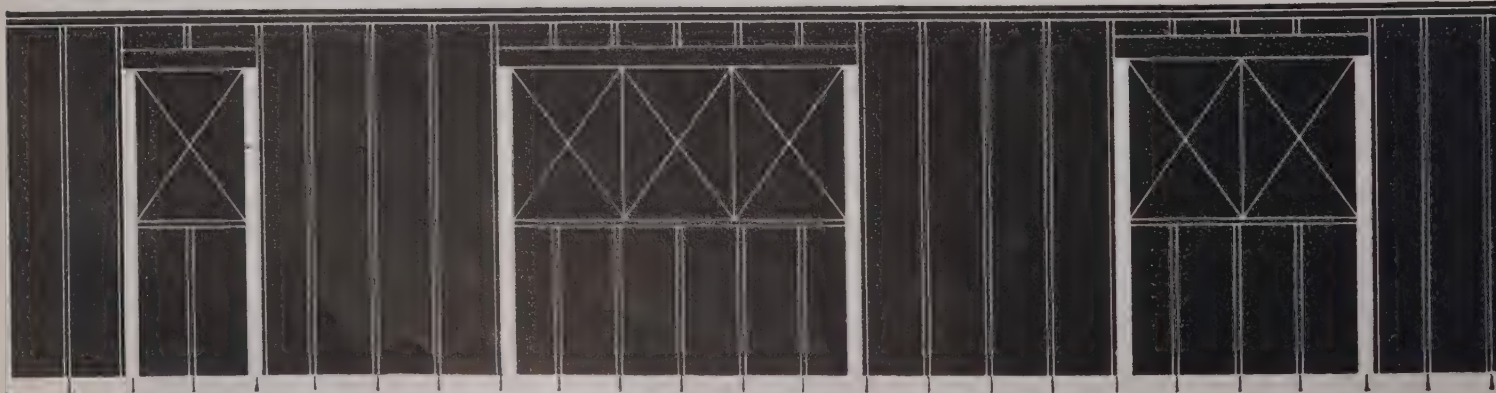
dows on four heights (2' for bathrooms, 3' for bedrooms, 4' for living rooms, 6' for picture windows), and six widths to fit studs 24", 32", 48", 64", 80" and 96" o.c.

Now the Research Institute, after a year of study with the window manufacturers, has streamlined the proposal down to only two of the five widths

the Round Table suggested and five slightly different heights (including a special height for kitchens). In proposing these ten sizes to the window manufacturers, NAHB said:

1. The purpose is to cut costs and prices by letting the window makers concentrate on a few sizes (the Round Table had urged the manufacturers to

Below is how Jim Lendrum would use these sizes . . . in multiples . . .



## For multiple windows, the trick is the trimmer

### For a single window

For a window 30 3/8" or 46 3/8" wide to fit between framing members 32" or 48" o.c.: put the trimmers on both sides of the window on the 16" module of the stud spacing. Put the studs outside.

### For a triple window

For example: three 30 3/8" units with a combined width of 91 1/8" to fit between framing members 96" o.c. Put the studs on both sides of the window on the 16" module; put both trimmers on the inside.

### For a double window

For example: two 30 3/8" units combined to make 60 3/4" to fit between studs 64" o.c. On one side put the stud on the 16" module with trimmer inside; on the other side put the trimmer on the module, with trimmer outside.



the 6'10" rough opening over a 6'8" door. Sill height would depend on type of window



#### 53" for living rooms.

This gives a 29" minimum sill—same height as most tables. (The Round Table had suggested 48".) Double hung windows need taller rough openings for same sill height.

#### 41" for kitchens.

This gives a 41" minimum sill—allowing 1" above a 4" back splash over a 36" counter to avoid a vertical joint. (The Round Table did not ask a special kitchen window height.)

#### 23" for bathrooms

This gives a 59" minimum sill. The 23" unit is also urged for stacking and for limited use in bedrooms. (The Round Table asked this narrow height only for bathrooms, where a special 5' length is needed.)

#### 34" for bedrooms

This gives a 48" sill, lets 4' interior dry wall and 4' exterior sheathing run uncut under the window. The 48" sill is high enough for privacy and furniture. Most architects say higher sills make a room a cell.

## ...in only these 10 rough opening sizes

quote lower prices on the few standard sizes to give every architect and builder a direct selfish reason for using them instead of odd sizes).

2. The sizes finally selected must not favor any one window type or material.

3. No one window type would necessarily be needed in all ten sizes.

4. Most houses will still need at least

one window in an odd size.

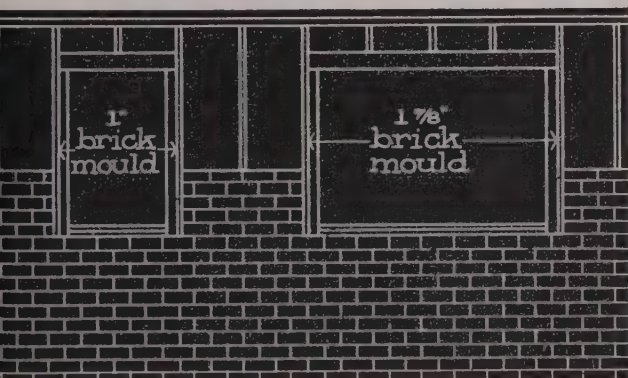
5. Tolerances of  $\pm$  or  $\frac{1}{4}$ " are needed.

NAHB questioned whether these sizes could apply to a "series of windows laid side by side", because every side by side unit would "call for a  $1\frac{5}{8}$ " reduction in the width of the rough frame opening" (see below left). And Wayne A. Norman of Carr, Adams &

Collier, in a very able report to the Forest Products Research Society, said the recommended widths are "not compatible with the present concept of window design involving combinations of single units into multiple units."

NAHB also questioned whether these sizes could apply to typical wall panel systems (like LuReCo).

### ... to fit masonry openings ...



#### In masonry, vary brick mould

##### For a single window

... you would need a mould 1" wide on either side, for the brick opening will be 2" wider than the stud opening (e.g., 32") plus a  $\frac{3}{8}$ " mortar joint.

##### For a double window

... you would need a mould  $1\frac{7}{8}$ " wide on either side. (For a triple window the mould would get too wide to look well.)

### ... to fit 4' panels like Lu-Re-Co



#### In a 4' panel use 1 x 4" studs

##### For a single panel

Use 1 x 4"s instead of 2 x 4"s. With the 2 x 4" in the next panel the 1 x 4" could support the plate, but most codes would require an extra 2 x 4" in each adjoining panel.

##### For a double panel

In a 96" panel space the 92  $\frac{3}{4}$ " window combination will fit just right between the 2 x 4" studs on either side of a double panel.





# Before

**this barn was remodeled,**

**designers Scott & deCossy had learned well**

**this basic lesson:**

**preserve an old building's space and sound structure**



**Exterior before . . .**



**and after remodeling**





# and you give it character **After** remodeling

**The designers** remodeled this barn to keep its most important advantages: generous space, basic structure, and simple character.

Existing beams (upper photo, opposite) were fastened by mortise and tenon joints, and pegged together. Recognizing the soundness of this original structural system, Scott & deCossy made no major changes in it, did not hide the beams and columns in the finished work.

Chief additions were a band of windows along living and dining rooms (opposite), and a second story bedroom-balcony (above).

Barn offered plenty of space (44' long, 34' wide, 27' to ridge pole) and by leaving most of the floor area open (right), the designers avoided a cluttered, busy look.

The new bedroom-balcony along one long side actually doubled the floor space in that area, made it easy to locate the smaller rooms (see plan on next page).

Native woods were used as finish materials wherever possible. These, with the exposed structure and the free-standing fireplace, give this converted barn its savor.





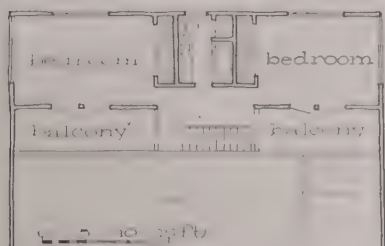
Ben Schnall



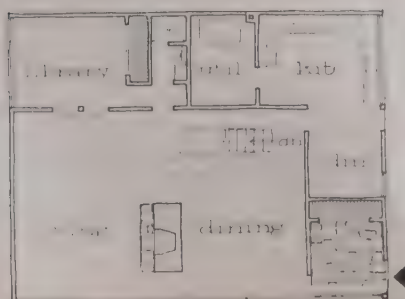
*Bedrooms are snug under slope of roof*



*Entrance view extends full length of building*



*Plans show first floor and balcony*



*Windows flood living room with light*

**Remodeled barn**  
**shows what**  
**contemporary design**  
**can do with**  
**an old building**





*Fireplace chimney rises to ridge pole; room height is emphasized by exposed structural framing*



## You never saw vinyl floors like these before



**Rolled flooring** is applied directly on concrete over new adhesive



**Edges are cut and trimmed** with straight blade knife

### B. Roll this floor right over the slab

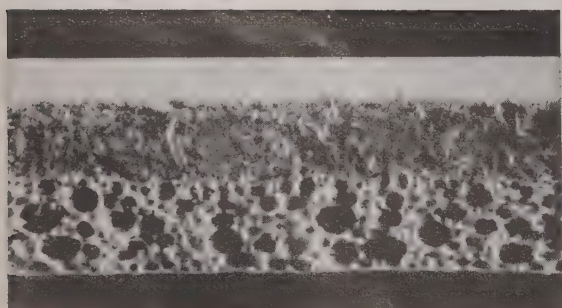
This new vinyl flooring goes down on a concrete slab like wall-to-wall carpeting.

For the first time, builders can now get vinyl flooring in rolls, apply it directly over the slab. A new backing (which looks and feels like asbestos) stubbornly resists alkali and moisture.

Vinyl facing is .07" thick, is as resilient, hard wearing, resistant to dents and scuffs as standard vinyl tiles. Surface colors of the new flooring are brighter, livelier-looking than those found in many resilient tile patterns.

The material is cemented to the slab with a new adhesive that changes color (from milky white to clear tan) after spreading to show you when it is ready to receive the flooring.

Manufactured by the Armstrong Cork Co., the new vinyl flooring comes in two of the firm's patterns—Terrazzo and Decoresque—in 6' rolls. Compared to the cost of low budget tiles, the new flooring is high—about \$4.50 per sq. yd. (50¢ psf. against 15¢-30¢ psf.) but the maker believes the installation time and labor saved by rolling it on may more than make up the difference in cost. For, unlike the fitting and placement necessary for each individual 9 x 9" tile, you roll this flooring on in sheets 6' wide, cut it at room edges just as you would carpet-by-the-yard.



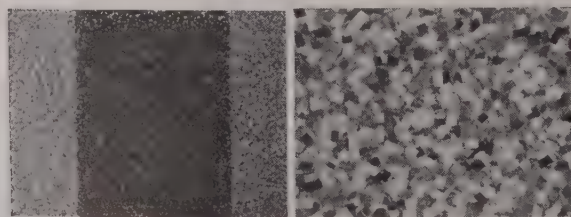
**Cushioned flooring** has foam rubber under vinyl top

### A. This floor lets you walk on air

Cushion-eze aptly describes a new Armstrong floor that fuses foam rubber to a vinyl facing.

You lay this new sheet material (it's 6' wide) directly on the subfloor, without using building paper. Because the foam is resilient underfoot, surface wearing qualities are greatly increased. The extra resilience also helps the flooring to resist particles of dirt and grime which often get ground into other types of material.

The easy-underfoot qualities of the floor, combined with sound-absorption, durability and resistance to stains make it especially good for kitchen installation. You might also think about it for heavily-trafficked areas like hallways, family room and children's rooms. It comes in some bright new patterns that may give you ideas for model house decorating.



**Decoresque pattern** (left) is one of two styles available in rolled flooring. Mosaic (right) is new Cushion-Eze design. It looks like hand-crafted mosaic tile.



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## How good is glue-nailed W roof truss?

Good enough to support twice the maximum load requirements, with little deflection, Cornell tests show

New glue-nailed trusses can support a roof as well as steel can.

Yet some building officials refuse to approve use of the new truss, which was jointly designed, thoroughly tested and introduced nearly two years ago by Purdue and the University of Illinois' Small Homes Council (H&H, March '55).

Because of this opposition the Lu-Re-Co people, whose lumber dealers use the truss widely, underwrote new tests at Cornell University. Purpose was to get additional performance figures on how good the truss is.

### What Cornell found

Results show that the glue-nailed W is as strong as originally reported by Purdue and the Small Homes Council.

Two 28' span test trusses were subjected to a maximum load equal to 53.5 lbs. per sq. ft. of snow. Maximum deflection was less than 5/16". This is well within the maximum allowable deflection of almost 15/16" (which should not exceed 1/360th of the span).

Cornell also tested the trusses at twice

the maximum required load, or the equivalent snow load of 107 lbs. per sq. ft. Even then maximum deflection was less than 9/16", well under the allowable 15/16" at half this load.

Cornell policy, like that at Purdue and Illinois, prevents "stated or implied endorsement" of any product. Thus the Cornell report simply concludes that the glue-nailed truss "met satisfactorily" the specified requirements.

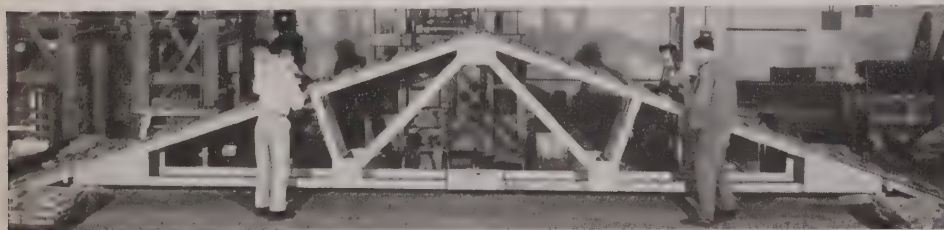
Since the Cornell tests add the weight of new evidence to that already compiled, it may help to satisfy skeptics.

However, experts emphasize that the truss must be made under controlled conditions and with the right kind of glue.

Lu-Re-Co dealers are prepared to issue a certificate guaranteeing that such requirements are met. In addition, instruction sheets on making glue-nailed trusses are available for 25¢ from Small Homes Council, Urbana, Ill.\*

\*Span, roof pitch and type must be specified when ordering, since instructions are also available on the glue-nailed sloped-ceiling and king-post trusses (H&H, Feb. '56).

Maclean Dameron



**How glue-nailed truss was tested.** Two 28' trusses (above), 24" on centers, were covered with 1/2" plywood and given maximum required load equivalent to 53.5 lbs. per sq. ft. of snow per truss. Maximum deflection of bottom chord was less than 5/16" or 1/1,100th of the span, "well under the usual requirement of 1/360." Even when maximum load was doubled, deflection was less than 1/600 or 9/16", "with complete recovery upon unloading." Trusses were not loaded to destruction because this "... does not have much meaning." Pitch of trusses tested was 4/12.

Libbey-Owens-Ford Glass Co.



**New use for heat-absorbing glass.** This windbreak, installed at a Malibu Beach, Calif. home, not only protects occupants from wind and flying sand, but heat-absorbing plate glass used in it gives extra comfort by sharply reducing sun glare. Glass is tinted bluish-green, bounces back 7% of sun's total radiant energy, absorbs 46.8%, thus lets in only 46.2%. It might also be used for patios, porches, summer houses or in sun-exposed windows of any house.

## Electric heat makers launch drive for more home sales

"Electricity will be as commonly accepted for home heating in the next ten years as gas or oil are now."

Nineteen manufacturers of electric heat equipment heard this optimistic forecast at their recent meeting to launch a drive for more sales to new homes. From the 300,000 houses fully heated by electricity today, they hope to bring the number to three million by 1960.

The manufacturers are members of the newly formed Electric Heating Equipment



PEQUIGNOT

section of the National Electrical Manufacturers Assn. which will underwrite a national promotion program to speed wider public acceptance of wired heat.

"There is hardly an area in the entire US, from Florida to Minnesota, from Maine to California, where electric space heating is not practical today," says R. E. Pequignot, chairman of the section. One of the big reasons: while competitive fuels have more than doubled in price since 1946 (oil from about 6¢ a gal. to about 14¢ today, for example), the price of electricity has generally held firm or actually dropped in some areas.

Pequignot also points out that an increasing number of electric utilities offer special low power rates to home buyers who choose electric heat. Others have put a 12-month budget billing plan into effect. In all, Pequignot says: "Some 84% of the nation's representative power suppliers now encourage . . . electric heat."

## How to harness the breeze for summer cooling

Here is how to make a house cooler without air conditioning:

You can catch the prevailing breeze by proper landscaping and window arrangement, according to experts at Texas Engineering Experiment Station, who say:

1. Landscaping around a house must be such that the breeze is channeled toward doors and windows.

Since dense shrubbery can hold back or deflect wind, keep planting low and well trimmed around house openings. New trees should not be put in the way of prevailing wind. Those already in place should be trimmed to guide the air. (Trees and vegetation also exert a cooling effect on the air itself.)

2. Windows should be located so they receive the channeled breeze.

For maximum cooling (swiftest air movement through the house) outlet windows should be larger than inlet openings.

continued on p. 190



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## Wood block flooring guide\* developed by BRAB

The control of moisture is of "primary importance in achieving satisfactory wood block flooring installations by adhesive bonding," says a new report from the Building Research Advisory Board.

Made by BRAB at FHA's request, the study also finds that a good wood block flooring job depends upon the right choice of adhesive and a properly prepared wood subfloor or concrete slab.

How to pick the right adhesive for various types of block flooring is summed up in two tables (below). Slab design recommendations were made in a previous BRAB report: "Slab-on-Ground Construction for Residences," (H&H, Sept. '55).

The report presents a nine-page design and installation guide for both laminated wood block and solid-unit block flooring. Because such flooring is most widely used

with slab construction, the guide gives top priority to five rules for dryness builders should follow prior to putting the flooring on a slab:

1. *Drying of materials.* All cement, tile or plaster work in the house should be thoroughly dried out.

2. *Heat and ventilation previous to installation.* A temperature of at least 70° should be maintained inside the house for not less than five days before the installation. House must also be well ventilated during the preparatory and drying periods.

3. *Heated slab previous to installation.* A slab designed as a heated slab should have the heat turned on gradually 36 to 48 hours after the slab is considered naturally dry. The heat should be turned off for 24 hours immediately before laying the flooring. (A heated slab is one with heating coils embedded within, or with warm-air heating ducts contained within a slab of normal 4" thickness.)

4. *Method of testing slab dryness.* A concrete slab should be checked to determine if it is sufficiently dry to receive flooring. A mat test is recommended as follows:

Lay rubber or plastic sheets, at least 2' square

in size, at several locations on the floor, weighting the sheets evenly so that they have uniform contact with the slab surface. Leave for 24 hours. If moisture appears on the underside of the sheets, the concrete should be allowed to dry further before wood block flooring is installed. If the concrete slab is 6" in thickness, or contains certain lightweight aggregate or similar materials, the mat test just described is not considered adequate. It is recommended that a test method be used that will reveal the presence or absence of moisture throughout the depth of the slab.

5. *Heat at time of installation.* It is desirable that the heat in the house at the time of installation be near 70° F. In no case should an installation be made with a temperature at the slab lower than 45° F.

If a wood subfloor is used, the report cautions you to be sure it is of thoroughly seasoned lumber. And at the time of installation the subfloor should have an average moisture content "close to the middle of the range of yearly moisture fluctuation of wood flooring for the particular area of the country."

\* \$1.50 a copy, available from Building Research Institute, 2101 Constitution Ave. N.W., Washington 25, D.C.

### Guide to use of adhesives for wood block flooring

	Adhesive	Heated slab			Unheated slab		
		Satisfactory use	Bonding range	Coverage	Satisfactory use	Bonding range	Coverage
Laminated block flooring	Hot-melt asphalt	no	—	—	Yes	0 to 72 hrs.	25-35 sq. ft. per gal.
	Cut-back asphalt	no	—	—	*Yes	**15 min. to 72 hrs.	35-45 sq. ft. per gal.
	Asphalt emulsion	no	—	—	Yes	12 hrs. to 72 hrs.	30-40 sq. ft. per gal.
	Rubber base						
	(Solvent type)	yes	**15 min. to 2 hrs.	30-40 sq. ft. per gal.	Yes	**15 min. to 2 hrs.	30-40 sq. ft. per gal.
	Special adhesives	(Manufacturers' instructions should be followed)			(Manufacturers' instructions should be followed)		
Solid-unit block flooring	Hot-melt asphalt	no	—	—	Yes	0 to 72 hrs.	25-35 sq. ft. per gal.
	Cut-back asphalt	no	—	—	*Yes	**15 min. to 72 hrs.	35-45 sq. ft. per gal.
	Asphalt emulsion	no	—	—	†Yes	12 hrs. to 72 hrs.	25-35 sq. ft. per gal.
	Rubber base						
	(Solvent type)	no	—	—	††No	—	—
	Special adhesives	(Manufacturers' instructions should be followed)			(Manufacturers' instructions should be followed)		

\* Use in accordance with flooring and adhesive manufacturers' instructions.

\*\* Time varies according to the material.

† Water must be out of the adhesive and installed in accordance with adhesive manufacturers' instructions.

†† Does not possess rebond characteristics.

Tables show the right kind of adhesive to use for various types of flooring and concrete slab construction. These recommendations also apply when

there is a subfloor of wood board or plywood. However, an underlayment is required when solid-unit flooring is installed on wood or plywood subfloor.

### Size hot water heaters to the family wash, experts recommend

Tank sizes for hot water heaters should be based on the family's peak laundry load, not on the number of bedrooms and baths in the house.

This is the finding of a BRAB study\* made for FHA as a result of the alarming rise in domestic hot water heater failures in new houses.

**Peak load requirements.** For an average family for four with \$3,000 a year income, BRAB recommends 46 gal. of water at 140°-150° F. as the peak laundering load. (Tank capacity should never be less than 30 gal.) The heater should be capable of delivering the 46 gal. over a 2 hr. peak load laundering period. It should also be big enough to provide at the same

time at least 7 gal. of additional hot water for other uses.

For larger families and higher income groups, the report uses an escalator method of upgrading heater requirements. **New rating method.** To determine exact size water heater and tank needed for a particular house, the report proposes a new rating formula. It makes allowance for two innovations in water heater sizing: 1) the incoming water supply temperature (which may vary from about 40° in Wisconsin to as high as 92° in the South); and 2) the type of fuel used. No allowance for these two important capacity influencing factors is made in FHA's current MPR's.

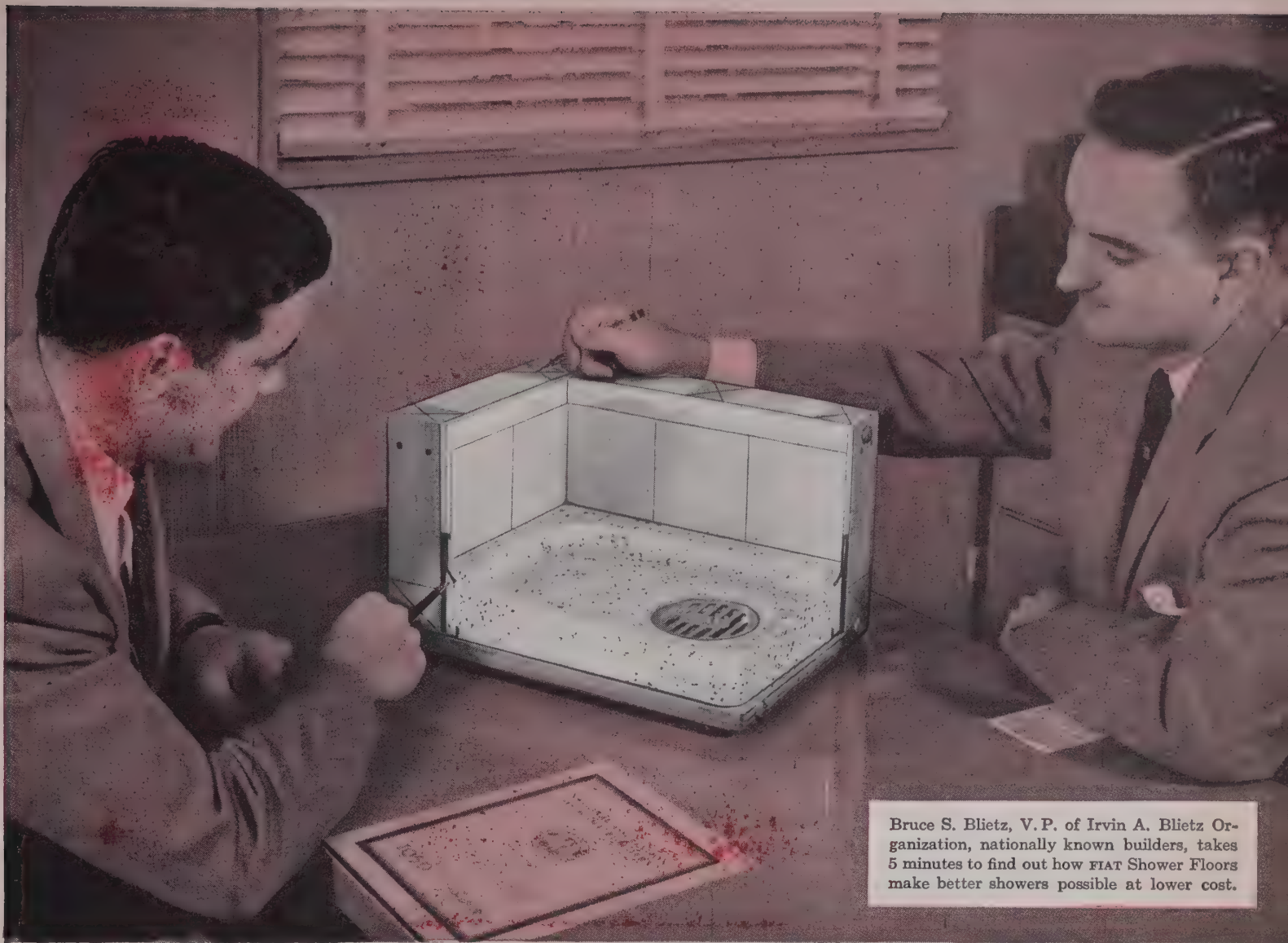
The report also recommends that dom-

estic hot water heaters should have a "reasonable service life of ten years." New house heaters have been known to burn out in as little as one or two years.

To assure longer service, the report also recommends new design standards for long-life heaters. If FHA adapts the BRAB recommendations in their entirety, manufacturers will have to meet standards and provide guarantees based on the ten-year service life requirement.

\*This report covers one of a series of special studies made by the Building Research Advisory Board under contract with FHA. Copies are \$1.50 each, from Building Research Institute, 2101 Constitution Ave., N.W., Washington 25, D.C.





Bruce S. Blietz, V.P. of Irvin A. Blietz Organization, nationally known builders, takes 5 minutes to find out how FIAT Shower Floors make better showers possible at lower cost.

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The cross section sample being shown in the photograph above clearly and simply demonstrates why the FIAT PreCast method of shower floor construction is the answer to an age old building design problem. It takes but a few minutes to see how this one-piece floor has many, many advantages over old fashioned, built-on-the-job shower floor construction. It is immediately evident that this solid, monolithic unit does away forever with any problems of leakage. The cut-away view shows how the integral flange forms a watertight seal between the floor and shower wall material (whether tile, plaster, wallboard or structural glass). You can examine how the drain is cast permanently into the floor material and how the inclined floor and raised shoulders deflect water downwards toward the drain. You will appreciate the substantial savings of on-the-job labor and understand why the low installed cost of a PreCast FIAT Floor makes all other shower floor methods obsolete.



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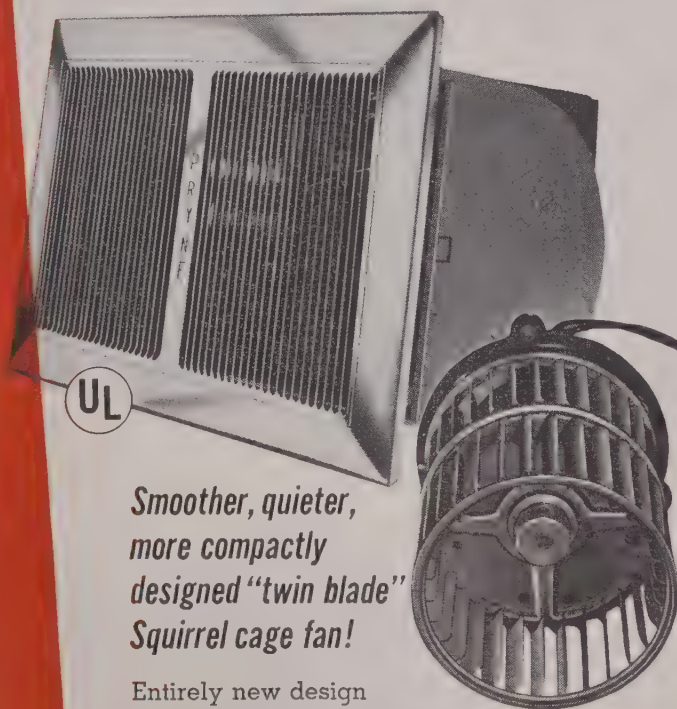
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continued from p. 127

places as India, Crete and Inca Peru. Everywhere, it seems, the need was felt for an open air space that was partly sheltered, and that had a clearly defined sense of privacy. In short, a real outdoor living room.

A patio is very different from a mere terrace. A house surrounded by a garden is one thing, but a house that has an articulated outer extension of the living area is another thing for body and soul. The problem of the 50' or 60' lot is nothing new: it was solved on the Island of Capri and in the mountain villages of Spain centuries ago. There a series of patios would supplement skimpy indoor floor areas and provide outdoor rooms separated from the neighbors by walls that assured privacy to each family. A contemporary house can solve the small lot problem in the same way.



Julius Shulman

FIG. 2

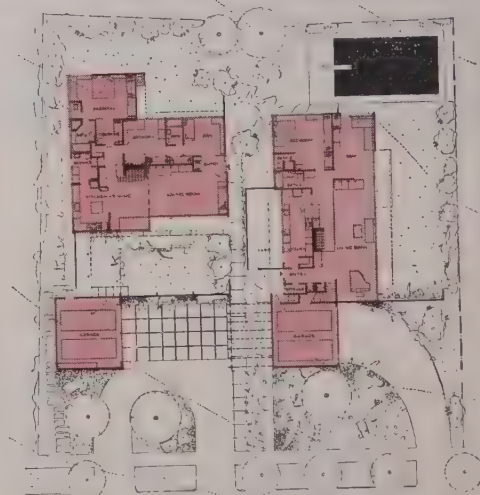


FIG. 3



FIG. 4

There are many ways of developing small lots by creating patios between neighboring houses. For example, in a Long Beach, Calif. development I grouped adjoining houses in such a way as to create outdoor privacy for each house on every lot (FIGS. 2, 3 & 4). In my own house, built 25



years ago on a 60' x 70' lot, the patio was placed in the center between two wings (FIG. 5). It was also given wind protection by being placed on the "lee" side of the main wing.



FIG. 5

We now have the equipment to create much more effective outer extensions of the living area than ever before: the sliding glass doors that I used to have to detail specially and painstakingly for every house I built years ago have now become a standard item in our building industry, so that we can order them by telephone in almost any size and from many different sources. Such sliding glass walls give us a chance to restore at will the continuity of space so significant to us.

Because the patio is, in effect, just another "room," questions of climate control obviously enter into its design. If you have a house facing the sea over a windy cliff, you may give the indoor rooms a dramatic, panoramic view and then create a sheltered patio on the "lee" side for a pool and for sunbathers (FIG. 6).



FIG. 6



FIG. 7

In one house I built years ago we even provided artificial heating and cooling in the patio floor and extended climate control beyond the "four walls."

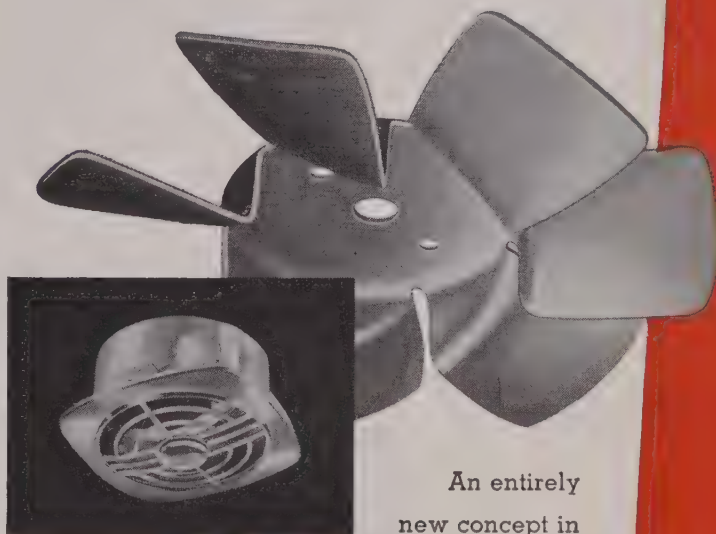
In that same house we also developed a set of adjustable metal shutters or louvers to protect the patio against winds, dust and sun (FIG. 7).

These, too, are now standard items that can be ordered out of a manufacturer's catalogue.

So the patio of old can in our age be made infinitely more livable than ever before. It seems to me that, as our land shortage increases, the patio house will inevitably return to solve the same problems it has solved so successfully in a long past./END

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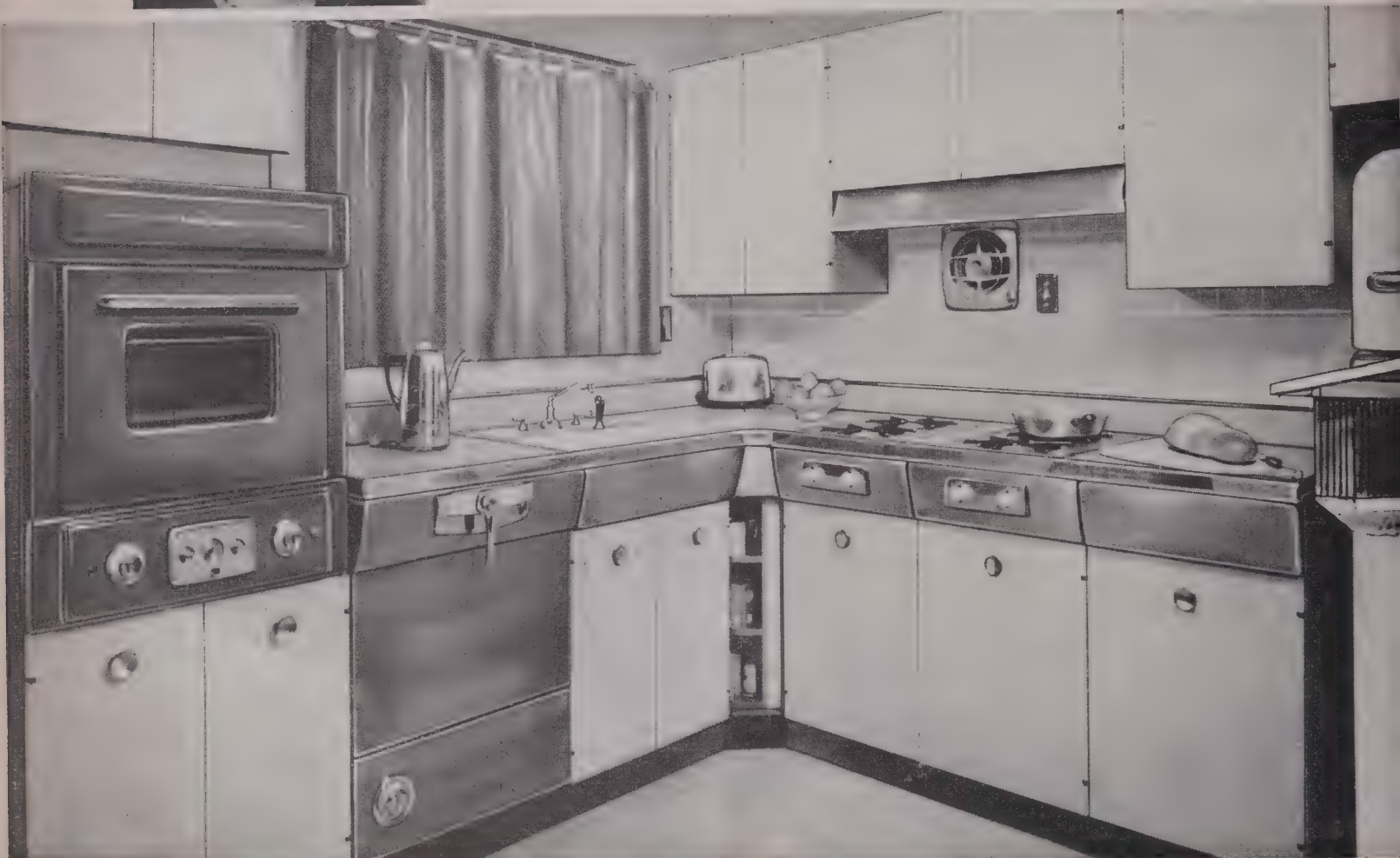






*"This kitchen has everything  
I've ever wanted!"*

says Mrs. A. Oliver Ward,  
happy homemaker, about the beautiful  
American Kitchen in her new home in Paddock Hills,  
exciting St. Louis suburban development.



## The "*Pioneer*" kitchen of birch, copper, and steel captivates new home owner in St. Louis

"We had been looking for a house for 3 years," says Mrs. A. Oliver Ward, a new home owner in Paddock Hills.

"When we walked into the kitchen of the Paddock Hills house, I just said, 'Oh, Ollie, this is it,'" Mrs. Ward declared. The American Kitchen was one of the deciding factors, she added.

"I always wanted a built-in oven and set-in range," said Mrs. Ward, "and I'm crazy about the American Kitchens Roto-Tray Dishwasher. It will be so easy

to load and unload."

"This kitchen has everything I've ever wanted," concluded Mrs. Ward, and thousands of smart homemakers throughout the nation echo this homemaker's feelings about American Kitchens.

They fall in love with the "*Pioneer*"—the stunning new combination of natural birch and antique copper on steel frame. That's why more and more builders everywhere are using American Kitchens to sell their homes faster!



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says Herman B. Mayer,  
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## Prominent St. Louis builder features "Pioneer" in Paddock Hills, his new home project

Like more and more outstanding builders everywhere, Mayer, Raisher, Mayer, developers of Paddock Hills, new St. Louis suburb, find that American Kitchens help sell their homes faster.

Paddock Hills is a fast-growing complete model community on a 300 acre tract in northwest St. Louis. The Mayer firm spent nine months developing plans for "woman-planned" homes—and as a result now offer seven completely different floor plans, with emphasis on built-in equipment to satisfy the modern homemaker's needs.

"In the first three weeks when our five display houses were open to the public, there were 35,000 visitors," Mr. Mayer reported.

The kitchen is the key room in the selling of a house. Mr. Mayer has found the "Pioneer" by American Kitchens a very great asset in selling the homemaker.

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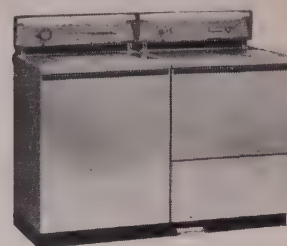
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a. Filter-Flo automatic washer and dryer bring new features to GE's 1957 line. Fingertip selector controls on washer give choice of two wash speeds, two spin speeds for all types of fabrics. Controls can be pre-set for a combination of wash and spin speeds. Water saver control holds back over 20 gal. of water when washing small loads. By using auxiliary tub, wash water can be saved, used over for new batch of clothes. Dryer controls determine length of drying time, adjust temperature to requirements of each load. Foot pedal on door leaves hands free to transfer clothes. 27" sq., 36" h. In white or five colors. GE, Louisville, Ky.



b. Rota-Drawer turns a kitchen corner into a storage center. Three or four pie-shaped drawers swing from a vertically positioned rod, come forward at a touch of a finger. Veneer of any materials used on other cupboards can be applied to face of this unit. \$54.95. Home Steel Products, Inc., Canton, Ohio.



c. Gas-fired automatic storage water heater has a high-styled exterior that will do any kitchen proud. Top accent, trim panel and bottom panel come in color or metal tones to mix or match with other kitchen equipment. Unit can be built-in with base and wall cabinets. Remove bottom panel to get at controls and drain valve. Heater comes with Rheemglas Imperial tank in 30, 40, and 50-gal. sizes. About \$300 including installation. Rheem Mfg. Co., Chicago, Ill.

continued on p. 202



For Genuine Beauty . . . specify  
new "TERRAZZO" pattern



There's more vinyl  
in every tile  
of *Bolta Floor*...  
stays beautiful longer  
...with or without wax!

Also available in  
22 marbled  
and solid colors!

Here is the rich, authentic beauty of old-world terrazzo—in wonderful, modern, "soft-to-the-step" Bolta-Floor vinyl tile! Bolta-Floor is a high-content, *homogeneous* vinyl floor tile that assures longest wear and lowest possible maintenance costs. Bolta-Floor will keep its gleaming beauty through years of hard use!

"Terrazzo" Bolta-Floor is produced in 15 beautiful decorator colors—and in 6 x 6, 9 x 9, 12 x 12 and 18 x 18 tile sizes ( $\frac{1}{8}$ " or .080" gauge).

Don't settle for less! Get the *genuine* beauty of new Bolta-Floor "Terrazzo."



HOSPITALS



HOMES



THEATRES



SCHOOLS

For samples write:

**THE GENERAL TIRE & RUBBER COMPANY**

FLOORING DIVISION • AKRON 9, OHIO



for further details check numbered coupon, p. 256

# ANNOUNCING... New Remington Cartridge-Powered Tool for Stud Fastenings

## REMINGTON "MIGHTY MITE" STUD DRIVER sets a stud a minute in steel or concrete!

Here's the "MIGHTY MITE"—small but powerful partner of the full-size Remington Stud Driver—the answer to any job requiring a  $\frac{1}{4}$ " diameter stud. It's the perfect tool for builders, light contractors and the "do-it-yourself" market... can be rented or purchased. You can buy it for only \$34.75!

The "MIGHTY MITE" has only three parts to handle... easy to load and operate. The upper assembly is unscrewed, the 22 caliber cartridge with the desired  $\frac{1}{4}$ " stud is inserted, and it's ready to go. One rap of the hammer on the firing pin, and "MIGHTY MITE" rigidly anchors wood sections or steel fixtures to concrete or steel! No pre-drilling required.

Safe, too. It's non-tilt—cannot be fired at an angle; cocks only when held in the proper firing position; must be pushed firmly in position to expose the firing pin. A four-inch-square guard provides full protection to the operator.

Send for the facts about the REMINGTON "MIGHTY MITE"—small, powerful and ideal for your construction job—at the lowest possible price—

ONLY

\$34<sup>75</sup>



Another great **NEW** cartridge-  
powered industrial tool by

# Remington



Industrial Sales Division, Dept.HH8  
Remington Arms Company, Inc.  
Bridgeport 2, Conn.

Please send me your free booklet which  
shows how I can speed the job and save with  
the new Remington "Mighty Mite" Stud Driver.

Name \_\_\_\_\_ Position \_\_\_\_\_  
Firm \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



d. **Classic** built-in oven has a roomy interior. 18" h., 18" w. by 19 $\frac{7}{8}$ " d. with almost 6,500 cu. in. of oven space, it fits into a standard 24" cabinet. The handsome door is air-cooled so it never gets too hot to touch. Automatic, electric, the oven has a recessed infra-red, smokeless broiler, a Space-saver baking element, dual-range timer, slanted control panel and heat-deflecting hood. Company has a line of matching stainless steel cooking tops. Oven about \$189.50 F.O.B. A. J. Lindemann & Hoverson Co., Milwaukee 15, Wis.



e. **Frigidaire** wall oven does two jobs at once. With divider in place, steak can be broiled above, biscuits baked below at different temperatures as required. To use conventionally, remove divider. French doors are handsome, make it possible to install oven in a narrow passageway. Four new colors and stainless steel give a variety of design schemes. Automatic control takes over watch work, so that oven cooks a complete meal with no one around to watch time. 17" model. Frigidaire Div., GM Corp., Dayton 1, Ohio.



f. **Kelvinator's** electronic range is on the market now. First dealer deliveries were made in July, although initial sales will be limited. Cooking, as you know, is done in minutes instead of hours. Kitchens stay cool since microwaves heat

continued on p. 206





**NEW**  
**CERAMIC TILE**  
**SIZE: 12" x 16"**  
**FROSTPROOF**  
**MAGNA-TILE**

***Stylon***

**CERAMIC  
TILE**



## New Products

for further details check numbered coupon, p. 256

### BALANCE YOUR WINDOWS

### why "BRAKE" them!

Unbalanced windows require many pounds of friction which puts the "BRAKES" on free movement!

**UNIQUE** Balanced windows are free to move—independent of friction and pressure-holding devices.

Inexpensive and quick to install by carpenter on the job or by the Millwork Dealer or Jobber in window units at the shop.

### INSTALL

### Unique

the World's  
**MOST EFFICIENT  
SASH BALANCE  
for double-hung  
windows**

OVER 160,000,000  
IN USE EVERYWHERE



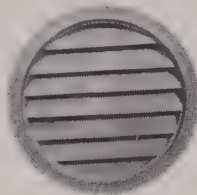
Available thru local  
Building Supply Dealers

Send for complete data today

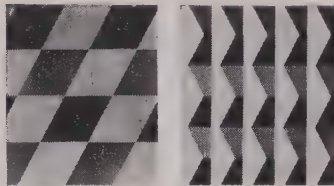
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25 Bruckner Blvd., N. Y. 54, N. Y.

Factories also in  
AUSTRALIA  
BRAZIL-CANADA  
and ENGLAND

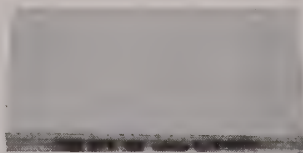
food, not utensils or range interior. All cooking is determined by time; when food is done, signal bell rings until manually stopped. Built-in model \$1,195 including delivery, installation, year's warranty; stack-on model \$1,245, same service and guarantee. Kelvinator Div., American Motors Corp., Detroit 32, Mich.



g. **24" Round louver** is one of a number of new round window items currently on the market. Round frame with louver fitted to frame contour is backed with aluminum screen wire. Frames will not leak, manufacturer says, can be easily trimmed on the inside; design is such that dirt can't collect. 24" louver sells for about \$35. Company has a complete line of round windows designed to blend with almost any architectural style. Webb Mfg. Co., Conneaut, Ohio.



h. **Drama tile**, by Dodge, may be an effective conversation piece for a model house. Tile shapes make it possible to create an almost unlimited number of geometric designs, including three-dimensional effects. Tile comes in ten plain colors and three natural cork patterns in 1/8" vinyl-cork tile only. Shapes are cut from 6, 9, and 12" tiles. Photos above show two possible designs that you might put in a foyer or a family room. Price installed from \$1-\$1.10 per sq. ft. Dodge Cork Co., Inc., Lancaster, Pa.

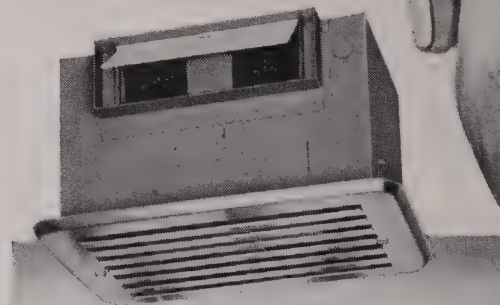


i. **GPX Yellow** is a medium density plastic-surfaced plywood designed to speed construction finishing and cut costs. Plywood can be sawed, machined, nailed, riveted and drilled; its smooth surface makes painting easy. Material goes up fast in large panels as interior walls, cuts maintenance since it uses less paint and makes it last longer. Standard 4' x 8' size in thicknesses from 5/16" to 1 1/4". Use it for built-ins, compartmented walls and partitions, as exterior siding where edges are not exposed to weather. Georgia-Pacific Corp.

continued on p. 210

For Appearance  
For Performance  
For Profit

figure with a  
**NEW Broan  
Range Hood\***  
and a



**NEW Broan  
Twin Blower Kitchen Fan**

Of all the modern appliances built into the kitchen, none is more vital in its effects on cleanliness, comfort and gracious living than the air exhaust system. If you agree, then you have a sharp and professional interest in the outstanding Broan Range Hood and its companion accessory, the Broan Twin Blower Kitchen Fan that can be installed in the hood, or independently in a ceiling, cabinet or soffit. Together, or by themselves, these two units provide a positive vapor exhaust system for any and all types of kitchen layouts — the kind that really works to win and hold customer good will for you.

Write today for full details — including a series of typical types of air exhaust systems to fit all kitchen plans.

\*This Broan hood comes in five sizes to meet any installation requirement. There are three preferred finishes — white enamel, coppertone, and stainless steel . . . as well as push-button controls, concealed flood lighting and matching splash plates.

**Broan MFG. CO., INC.**  
Hartford, Wisconsin, near Milwaukee





**CARLTON Stainless Steel Sinks provide...**

*The bright spot in your kitchens*

**...yet cost you not a penny more**



**Carlton Sinks Have  
Still Other Advantages**

Every housewife will appreciate the greater bowl depth, allowing over a gallon more water capacity; the splash-free center wall, the extra resilience of stainless steel which reduces dish breakage, keeps silver from scratching. And Carlton Sinks can never wear out!

For the finishing touch to a truly modern kitchen, specify a Carlton Stainless Steel Sink. Its silvery sheen blends with every color scheme. It is as easy to keep clean as washing a glass. No surface enamel to chip or crack. No discoloration, rust or stain. Special rubberized undercoating hushes dish clatter and reduces garbage disposer noise to a whisper . . . Carlton Stainless Steel Sinks save you money on installation costs, too. The Carlton double sink bowl shown above (32" x 21") weighs only 17 pounds; can be installed in a jiffy — saves you money on shipping costs also . . . Carlton Sinks come in standard sizes that require no custom fitting. Send today for our Illustrated Catalog 122. Carrollton Manufacturing Company (Sink Division), Carrollton, Ohio.

*The bright spot in your kitchens*

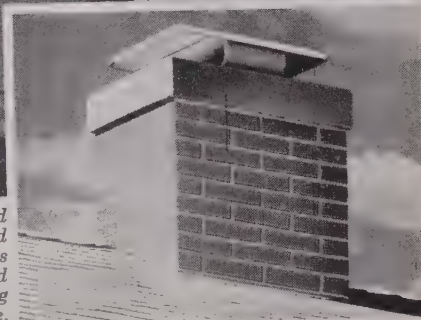
**CARLTON  
STAINLESS STEEL  
SINKS**



for further details check numbered coupon, p. 256



Van-Packer Chimney (above) safely and efficiently vents furnace, water heater and incinerator. Suspended installation saves space, allows heating equipment to be located anywhere. Van-Packer brick-panel housing (right) provides handsome roof appearance.



## Masonry Van-Packer Chimney vents furnace, water heater and incinerator safely

**Safety and permanence** are built into the Van-Packer Packaged Masonry Chimney. Its tile liner withstands 2100°F., completely safe even for the extremely high stack temperatures and frequent heat shocks of incinerators.

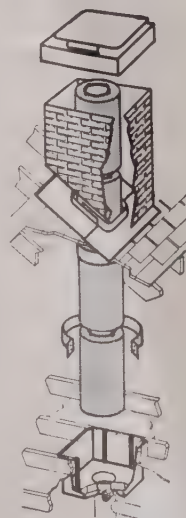
**UL listed** for all fuels, for all home heating plants and incinerators; approved by all major building codes. Flue sections have  $\frac{3}{4}$ " fire clay tile liner, 3" vermiculite concrete insulating wall, cement-asbestos jacket.

**You enjoy savings** of a pre-built product with Van-Packer. Completely packaged including flashing, the Van-Packer Chimney goes up in 3 hours, saves you 20-40% over brick. In chimneys, only Van-Packer gives you permanence of masonry plus economy of pre-engineering.

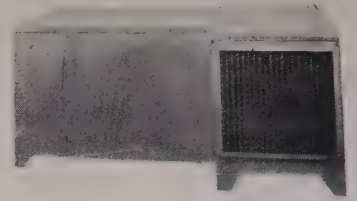
**Attractive brick-panel housing**, in red, buff or white, blends with any home, assures buyer acceptance.

**You get greatest draft** for best furnace operation with Van-Packer—proven in independent tests.

**Immediate delivery** to job from your local heating jobber or building material jobber. See "Chimneys—Prefabricated" in yellow pages of classified phone book, or write Van-Packer Corp. for Bulletin RS-1-19.



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World's Largest Manufacturer of Chimneys

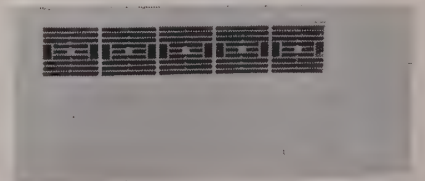


**J. Cobiaire air conditioner** is powered by natural or LP gas. A patented device that allows it to turn out a ton of refrigeration for each unit of horsepower means it can be operated for less money, according to the manufacturer, since the usual ratio is about three horsepower for every ton of refrigeration.

Initial costs will be slightly higher than for conventional electric systems—between \$500-\$600 per ton, as against an estimated \$400-\$500 per ton for an electric unit—but maker says the new equipment will operate for about 60% of the cost of an electric unit under similar conditions.

The Cobiaire gas unit uses the company's Aqua Fog condenser to dissipate system heat gain, but the difference lies in the manner of supplying power for the compressor. Gas unit uses a Copeland Compressor powered by an International Harvester industrial-type engine operating on natural or LP gas. Cooling medium of the Aqua-Fog evaporative condenser is reduced to within 1°F. of the ambient wet bulb temperature. Net effect is that the unit capacity is not affected by the dry bulb temperature and, maker says, equipment maintains almost constant capacity anywhere in the US, since it does not lose capacity and efficiency as the outside temperature rises.

The company's gas fueled condensing unit (5-ton size) generally may be installed complete with furnace, cooling coil, ductwork and utility connections in price range mentioned above. Unit is said to be quiet in operation, requires no floor space inside the house, since cooling coil may be installed directly above or below the furnace. Air conditioner is manufactured by Cobell Industries, Inc., Ft. Worth, Tex.



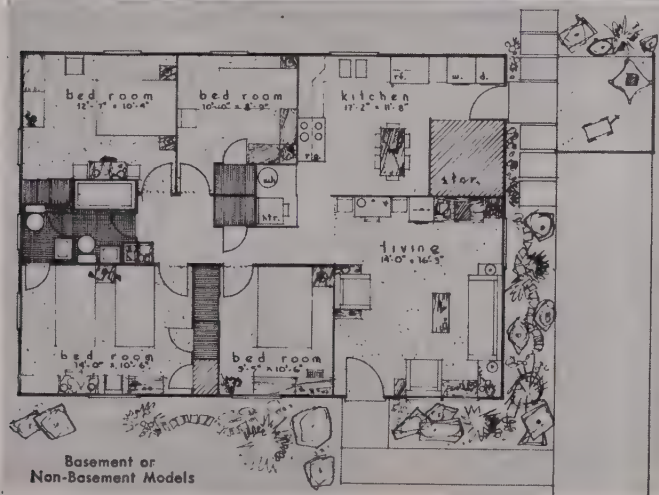
**k. Lewyt built-in wall air conditioner** is still the same size—15" d., 15 $\frac{3}{4}$ " h., 32  $\frac{7}{16}$ " w.—with a host of new features. Among them: two motors with overload protector and automatic reset; five adjustable directors to control air flow; allergy-proof aluminum filter that can be cleaned with water, doesn't need replacement; six-bladed aluminum condenser fan and slinger ring; twin double blower scroll for quiet operation; improved condenser coil.  $\frac{3}{4}$  ton. Lewyt Air Conditioner Corp., Long Island City 1, N.Y.

continued on p. 214



meet the  
**RICHMOND**

# Champ



More than 1150 Square Feet of  
Low-Cost Living Space

## 28' 8" x 40' 8"

### 1½ BATHS! FOUR BIG BEDROOMS!

Meet a new Richmond Home that is really the quality "CHAMP" of the low-priced field! Here is a roomy, four-bedroom house with 1½ baths that offers all the quality, modern styling and individuality of expensive homes, but at a much lower price. You can offer your prospects a distinctive home with greater privacy and controlled family activity.

The "CHAMP" is built from the finest of name-brand construction materials, and features expert workmanship throughout. Framing is of sturdy, full-wall 2 x 4 stud construction—16" o.c. with reinforced trusses supported by the outside walls. Fir and Hemlock No. 1 and better, are used for all framing and trusses. Outside covering is factory applied. And, like all Richmond Homes, it is "under roof," with all doors and windows secure in a single day!

Write for complete information about the "CHAMP" or the two other outstanding, low-cost project homes of Richmond's STANDARD LINE:

#### The Challenger

More than 1,050 square feet—  
4 bedrooms

#### The Peerless

More than 1,050 square feet—  
3 bedrooms

All Richmond Homes are of conventional construction and offer the finest materials and precision workmanship throughout.

WRITE BOX H



**RICHMOND homes • INC.**

RICHMOND, INDIANA

**QUALITY HOUSING AT ITS LOWEST PRICE . . .  
"OUTCLASSES" ANYTHING IN ITS FIELD!**

RICHMOND HOMES BUILDS A COMPLETE  
LINE OF TRADITIONAL AND CONTEMPORARY HOMES—  
COMPETITIVELY PRICED IN ALL RANGES

#### The Standard Line

Low-cost Quality Homes—Conventional Type Framing

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Luxury Sales Features in the Medium Price Field

#### The Nassau Group

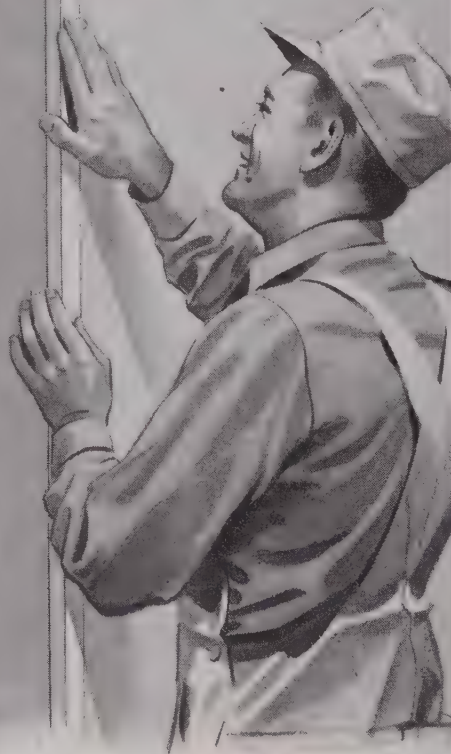
Contemporary Designs—Complete Flexibility  
of all Elevations. Distinctive styling.

**The Quality Home, Factory Built  
for Particular and Capable Builders**



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Walls

GOOD  
OR  
BAD

..... **BEADEX** AND  
..... **JambeX** MAKE THE  
**DIFFERENCE**

**Beadex** and **JambeX** provide *quality* and *beauty* in drywall construction... give lasting strength with no cracks, no bulges, no bends, no metal exposed!

**Beadex** applies directly to the wall... is *not* nailed to the framing members. As a result, it is not affected by the shrinkage of studs or movement of the wall... squares up uneven corners. Walls with **Beadex** corners retain their beauty permanently, an important factor in the salability of your homes and customer satisfaction for years to come.

**JambeX** is applied directly to the walls around doors and windows and inserted in a sawed kerf in the jamb stock. The kerf absorbs any shrinkage or movement in the jamb material and the corner remains durable and beautiful indefinitely.

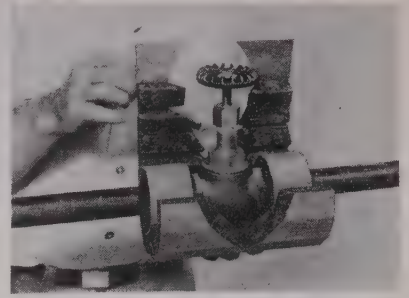
For quality drywall construction, always specify **Beadex** and **JambeX**!

Write Today  
for Free  
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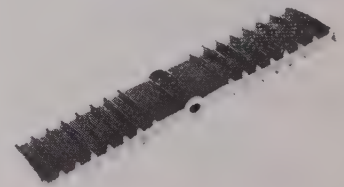


**BEADEX SALES, INC.**

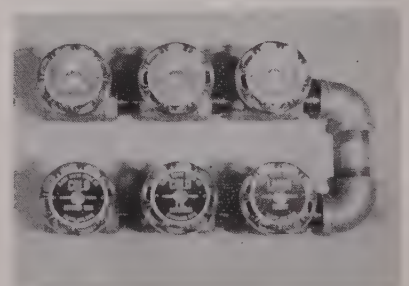
4615 Eighth Avenue N.W., Seattle 7, Wash. • 658 Bayview Ave., Toronto, Ont., Canada



**l. LT cork covering** is a new low-temperature pipe insulating material that combines high insulating value with elimination of wiring, pointing and painting. It's made of precision-cut segments of Armstrong Corkboard adhered to a backing of asbestos and aluminum laminated paper for high fire-resistance and protection against moisture. Apply covering by wrapping it around low temperature lines, seal the lap with adhesive. Workmen can saw material to size and shape needed on the job. Armstrong Cork Co., Lancaster, Pa.



**m. Durajoint**, a waterstop and expansion joint, is extruded from a Thermo-Plastic material and comes in long, flexible coils in widths from 2 1/4" to 9". It can be used between adjacent sections of concrete structures like tanks, channels, tunnels, culverts, swimming pools, walls, roofs, etc. Ridges on the surface give effective bonding to the concrete and a central hollow tube increases capacity to handle extension and lateral movement of the masses of concrete without joints being sheared. W. R. Meadows Inc., Elgin, Ill.



**n. Plumbers and contractors** can make good use of color since these valve plates of .22 ga. aluminum come colored and labeled for immediate identification. Tags labeled "gas" (for furnace, water heater, stove, etc.) are bright yellow. "Cold" and "hot" water tags are black and red, labeled location-wise, i.e. "second bathroom," "kitchen sink." Specify, too, whether house is one or two stories—"bathroom, second floor." Plates cost about 19¢ apiece. Flash Valve Index Co., Cleveland 8, Ohio.

continued on p. 218



For the kitchen, the luxury look is also the most practical. Smooth, lustrous Styron plastic wall tile is a homemaker's dream to keep sparkling clean. Colors won't chip or peel or wash away . . . spots and splashes wipe away in a jiffy. Today, the kitchen sells the home . . . and Styron plastic wall tile sells the kitchen!



*Wherever beauty must be practical . . . from smart, modern dining areas to hallways, recreation rooms, utility rooms, powder rooms . . . Styron plastic wall tile is your answer. Here is wall beauty that sets the pace for casual, colorful living . . . beauty with the quality guarantee. And remember, there are shapes and colors in Styron plastic wall tile to accent your every plan.*

## THESE ARE YOUR GUIDES

The emblem (left) identifies the certified dealer who will give you a written guarantee (center) covering plastic wall tile, mastic and installation which conform to quality standards established with the U.S. Dept. of Commerce, Bureau of Standards—CS 168-50. The Styron label (right) is added assurance of the best in polystyrene plastic.

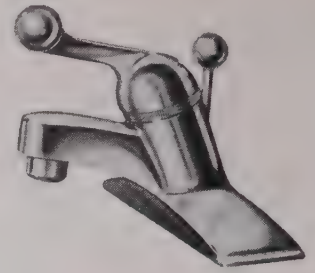


*you can depend on DOW PLASTICS*

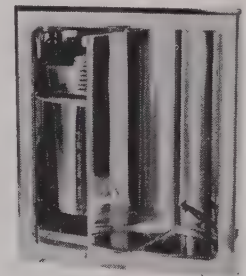




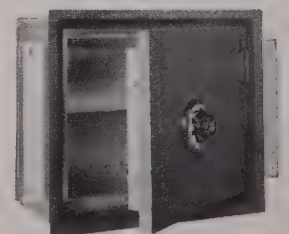
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**o. Delta faucet** has only one moving part—a specially hardened ground ball operating in a ball socket joint. It controls both temperature and volume of water with just one easy movement of the hand. Handsome, modern design comes in four models: standard lavatory faucet is \$18.95; chain pull, \$19.65; pop assembly complete, \$24.50; rod only, \$20.40. Connection data:  $\frac{3}{8}$ " tubing, 4" long and 4" centers. Base 2" deep x 7" long. Delta Faucet, Div. of Masco Screw Products Co., Dearborn, Mich.



**p. Turnette** is a glossy new bathroom accessory that holds a soap dish, tumbler and four toothbrush holders mounted on a brass chromium-plated panel that revolves into its recessed housing with the flick of a finger. Solid-paneled back then becomes the front. Clean lines make the Turnette a good match for other bathroom accessories. Photo above shows it half-turned. Price is about \$13.50. Miami Cabinet Div., The Philip Carey Mfg. Co., Cincinnati 15, Ohio.



**q. Hercules wall vault** fits perfectly between joists 16" o.c. with no extra preparation. Vault has heavy steel flanges welded to body of unit and drilled for screws or bolts which can be fastened securely into joists so that unit is permanent part of house after wall is finished. Recessed door holds the combination dial, makes it possible to hang picture over unit, since nothing protrudes. Divider shelf inside. Outside measurements: 13" h., 14 $\frac{1}{2}$ " w., 8 or 12" d. Meilink Steel Safe Co., Toledo, Ohio.

continued on p. 222

TWO COATS  
ARCO

TWO COATS  
PAINT X

## NO BLISTERS

with

### ARCO ALKYD HOUSE PAINT...

Test panels of Arco Alkyd House Paint and others were weathered outside for four months . . . then attached to a test house for another four months. Inside a 75 degree temperature and a 70% relative humidity were maintained at all times. Arco proved most resistant to blistering. It was also demonstrated that Arco had the best adhesion characteristics.

Why not use Arco Alkyd on your next house? It flows on easily, dries fast . . . is ready for recoating in only four hours. Its beautiful fade resistant colors defy wind, rain and snow—keep that fresh new look for years.

**THE ARCO COMPANY**  
7301 Bessemer Avenue  
Cleveland 27, Ohio

Gentlemen:

Please send me Arco's New Color Styling Kit complete with 111 professionally styled color schemes and 56 swatches to guide me in color styling and plot development.

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COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

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STYLING KIT**

**A**rco  
PAINTS

TESTED FIRST TO LAST





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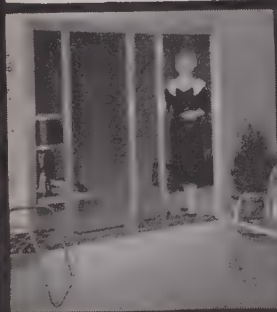


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# THE *Fleetlite* Rhapsody in Glass



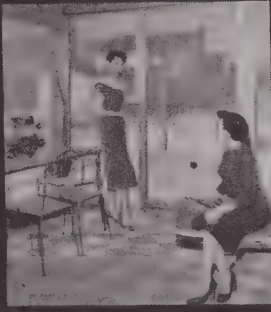
## SLIDING WINDOWS



SLIDING DOORS



DOUBLE, DOUBLE HUNG WINDOWS



JALOUSIE WINDOWS

Glass — bringing light, vision, beauty to our new construction is offered by Fleet in matching frames of extruded aluminum. Engineering has solved the problems of weathertightness and ease of ventilating. Good design has made it practical to mix different styles in the same building.

Now you can have complete freedom and use sliding glass doors, either double hung or horizontal sliding windows and as a special feature a Jalousie window or door.

All Fleetlite products meet the needs of northern winters and western dust storms.

Write today for complete information.

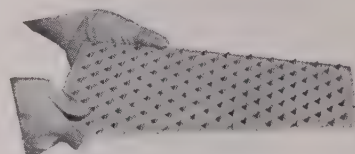
**Fleetlite**  
AMERICA'S Finest WINDOW

**FLEET OF AMERICA, INC.**

2013 Walden Avenue, Buffalo 25, New York



r. Sliding door hardware, previewed in 1956 California Design Show, will be appearing on Arcadia steel and aluminum-framed sliding glass doors. Pulls are in chrome, bronze and black with a dull finish. Patterned metal inserts in Alumilite or black highlight the design. Patented latch mechanism is said to give maximum protection against tampering with the positive up-action, cam-type design. Spring lock latch is jamproof. Arcadia Metal Products, Fullerton, Calif.



s. Sturdy lightweight rafter trusses can be constructed by use of a new positive mechanical connection that assures a joint to resist tension and compression. Gri-P-Lates are electro-galvanized pieces of steel perforated with  $\frac{1}{4}$ " deep angular teeth which are pressed into wood truss members at each face of each joint under 50-ton pressure. Maker says truss may save from \$100-\$150 over-all on a medium-sized house because of spacing 24" o.c. instead of 16; about 30% saving on material handling, elimination of double 2 x 4 plates over partitions and door openings and elimination of foundations under interior partitions.

Company made exhaustive load tests showing all trusses were designed for a minimum safety factor of  $4\frac{1}{2}$ . Speed of erection indicates that rafters can be ready for sheathing in less than an hour after delivery. Earlier dry-in gives protection and avoids delays due to weather, and men must spend less time on scaffolds.

Trusses can be used for hip or gable roofs and flat pitches, such as  $1\frac{1}{2}/12$ , for one or two-story frame or masonry buildings. Several sizes and shapes of grid plates are available, 16 plates are used to assemble each truss.

With fast roofing made possible by use of trusses, extra savings may be effected by advance ordering of materials which have to go under cover: flooring, etc. Each truss weighs from 100-108 lbs., can be handled by two men. Since interior partitions can be light and nonload-carrying, chances of plaster cracks are reduced. Plate was designed by A. Carol Sanford, Sanford Enterprises, Ft. Lauderdale, Fla.

continued on p. 226





Lemon Hill, in Fairmount Park, Philadelphia, one of the most graceful facades in America, was visited frequently by Washington, Hamilton, Lafayette and Jefferson.

## Double Hung Wood Windows Add Grace to the Beautiful Exterior of Lemon Hill



Relative inexpensiveness permits generous use of double hung wood windows with metal weatherstripping, even in the most modern homes.



An endless variety of design can be achieved with double hung wood windows. They are easily shaped and their surface receives and holds any type of finish.

From 1770 to 1798 Lemon Hill was the home of Robert Morris, one of the most famous financiers of the Revolution, member of the Continental Congress and signer of the Declaration of Independence. Morris filled his hot houses with what were said to be the first lemon trees brought to Philadelphia, giving the mansion its name.

Double hung wood windows add grace and dignity to Lemon Hill mansion, just as they do to modern homes. Other materials cannot hope to duplicate the warmth and versatility of wood. Also, today, with the advancement of modern chemistry, the natural durability of wood windows has been greatly increased through preservative treatment—further assuring rugged endurance in all kinds of weather.

Another plus factor for double hung wood windows is the use of modern spring sash balance and metal weatherstripping. The extraordinary durability of metal weatherstripped double hung wood windows means less maintenance and longer life.

### WEATHERSTRIP *Research* INSTITUTE

OFFICE OF THE SECRETARY, BOX 128—RIVERSIDE, ILLINOIS

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for further details check numbered coupon, p. 256



New Homes by Cincinnati's Raeburn Construction Co. feature low roofs, no attics. Inset: Alfol in typical wall installation.

## "Alfol gives the most effective job . . . in the least man-hours of installation!"



Pacing the Cincinnati market for better homes, Raeburn Construction Co. specializes in low-slung, modern designs — low roofed and atticless. Quality built throughout, Raeburn homes are insulated with Borg-Warner's Alfol Reflective Insulation.

"For the type of homes we build," writes owner Stuart L. Faber, "we wanted the best in winter insulation, along with a super-efficient summer insulation that cools quickly in the evening, won't give off heat all night. Reflective insulation was the only logical choice."

### Efficiency the prime factor

"And in 10 years experience with various reflective makes, we have found that Alfol gives the neatest, most effective job . . . in the least man-hours of installation!"

Naturally, Mr. Faber also welcomes the initial savings provided by Alfol, and the handling ease made possible by its remarkable compactness. But the primary factor was efficiency: "Our Alfol choice has already been justified," writes Mr. Faber, "by the comments of our new owners."

Patented, the Alfol blanket consists

of multiple aluminum foil sheets that space themselves automatically on application, reflect 95% of all radiant heat. A tough duplex and kraft backing is built in to offer full application support, provide a positive vapor barrier.

Clean and non-irritating, Alfol takes the "itch" out of insulation. And its unique compactness (500 sq. ft. to the roll) minimizes handling and storage expense. That's why Alfol usually costs less. Your dollar buys less labor, less "overhead" . . . more and better insulation.



Send today for free copy of new **ALFOL DATA BOOK** which tells all about this growing favorite in insulation. Learn how Alfol adds a plus value to your homes . . . saves money too! No obligation.



# ALFOL

ALUMINUM FOIL INSULATION



## REFLECTAL CORPORATION

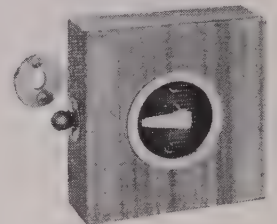
A subsidiary of Borg-Warner Corp.  
310 South Michigan Ave., Dept. A-6  
Chicago 4, Ill.

INGERSOLL  
ROOF DECK

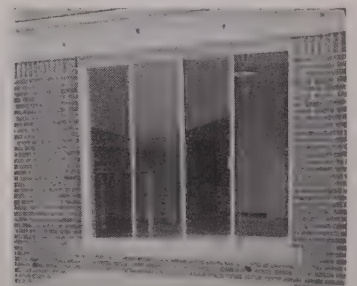
KOOLSHADE  
SUNSCREEN



t. Perfect fit, easy operation are assured by precision factory preassembly of Nudor aluminum sliding glass doors. Company assembles and tests all units at each manufacturing stage (as photo above indicates), predrills all necessary parts on a gang drill. After all processes are completed, unit is dismantled, ends properly marked with pieces wrapped and packaged. Maker says you can assemble for a perfect fit in less than 15 minutes on site. Pretests eliminate costly call-backs. Nudor Mfg. Corp., North Hollywood, Calif.



u. Sliding door lock, made for fast installation on modern sliding wood doors, instantly compensates for any misalignment by its design. Concave face of the round strike automatically directs the simple ball-shaped bolt into strike hole, even if door misalignment is as much as 1/2" in any direction. New lock has two moving parts, needs only the boring of two holes of standard dimensions. Model 666 fits doors from 1-3/8" to 1-3/4" thickness. Recessed escutcheon cups serve as flush pulls. \$5.30. Adams-Rite Mfg. Co., Glendale 4, Calif.



v. DorWal aluminum sliding glass door is said to be weathered to take all climates since it has double pile weathering on both inside and outside surfaces. Deep baffle jamb provides for out-of-square installations and takes as much as 1" of tolerance per door. "Sturdibar" meeting rail keeps frame from distortion, gives independent weathering of panels at meeting rail. Sloped sill and interior condensation gutter provide drainage. From \$113-\$279 less glass, screens extra. Acorn Aluminum Products Co., Detroit 8.

continued on p. 230



On the Job Tests Prove...

**YOU CAN FINISH**

**3**



**FLUSH DOORS**

for what it Costs to Finish

**2**

**STANDARD  
DOORS**

*Yes*, wherever they're used DOUBLE-S doors  
show an average saving of 50% labor  
and 30% material in finishing costs.

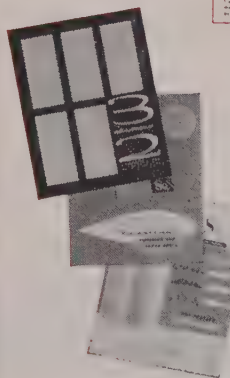
#### HOW IT WORKS

The Microseal Process which distinguishes Double-S doors from all others is now standard and exclusive with all General Doors.

It consists of a scientifically controlled combination of heat and pressure applied after the completion of the standard C-S 200-55 sanding cycle. The natural lignins are simultaneously fused and compressed to form when cooled, a hard, smooth semi-glazed surface which will take on a high gloss with a single finishing coat and which requires no sanding before or during the finishing operation.



#### DOUBLE-S Literature

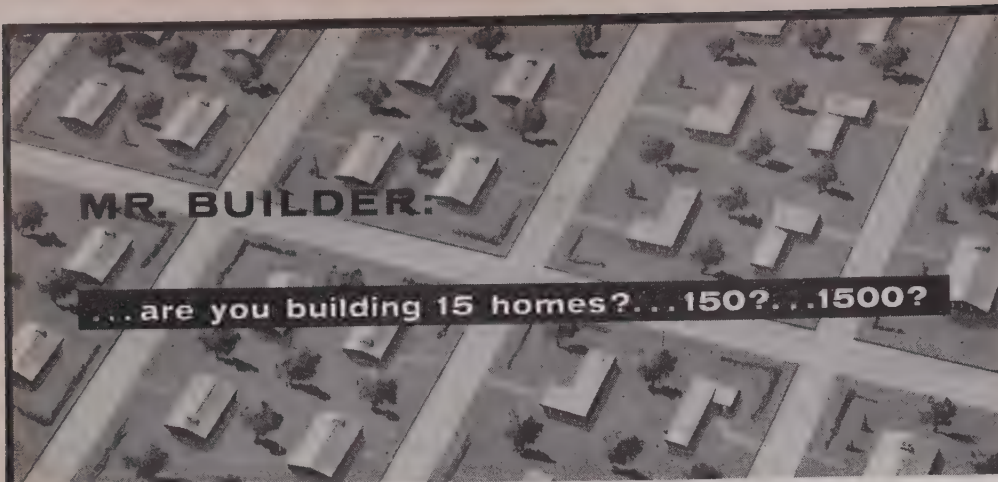


Let us send you our new brochures on gum, luan, birch and other species of General Double-S doors, including the spectacular "3 for 2" circular which describes fully the Microseal Process and the savings it makes possible. Just drop your letterhead in an envelope and mail it to us. We'll know what you mean.

**General Plywood Corporation**  
**LOUISVILLE, KENTUCKY**



for further details check numbered coupon, p. 256



MR. BUILDER:

...are you building 15 homes?...150?...1500?

## WASTE TREATMENT IS A PROBLEM YOU MUST SOLVE

For low-cost, dependable waste treatment plants, see **YEOMANS** . . . specialists in subdivision waste treatment plants

### SUBDIVISION SEWAGE TREATMENT PLANTS OFFER THESE ADVANTAGES:

1. **Low original cost** . . . complete treatment plants and collection lines can often be built for as little as \$250 per home, depending on the size of the development.
2. **Yeomans systems can be built in stages.** Subdivisions can start with a minimum system . . . then be economically expanded as population increases.
3. **Odor**, which is usually associated with septic tank systems, is *not* a problem when the subdivider provides a community sewage treatment system.
4. **Yeomans systems are compact**, attractive in appearance . . . suitable for location in or near the subdivision, without creating an "eyesore."
5. With community systems, local governments often permit builders to use *smaller lots*. More homes share the original cost of the system as well as other off-site improvements, such as streets and drainage.
6. Community sewage systems are known to *increase land values* anywhere from \$200 to \$1,000 . . . thus the property is worth more to both the owner and the lender, and it's easier for the builder to sell.
7. **Low operating cost and simple maintenance.** Non-professionals can be readily trained to operate Yeomans community sewage systems . . . and also to handle routine maintenance.
8. Yeomans plants meet all State, FHA, and VA requirements . . . Yeomans manufactures all types of equipment for all types of treatment systems.

Whether you're building 15 homes or 1500, sewage treatment is one of the first problems you'll have to solve. We suggest you arrange for your engineers to consult with members of the Yeomans staff of sanitary engineers who can supply helpful cost, design, and operating data.

Yeomans engineers can, and will, recommend the equipment best suited for your needs . . . and without bias, because Yeomans manufactures a complete line of sewage treatment equipment.

Community sewage treatment plants cost less than you may think!

# YEOMANS

2003-B N. RUBY ST., MELROSE PARK, ILLINOIS

**USE THIS COUPON**  
to request  
additional  
information:

☐ Please furnish information relative to a sewage treatment system to handle approximately \_\_\_\_\_ homes.

name \_\_\_\_\_

company \_\_\_\_\_

street \_\_\_\_\_

city \_\_\_\_\_ zone \_\_\_\_\_ state \_\_\_\_\_

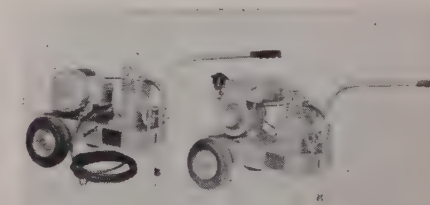
our engineer is Mr. \_\_\_\_\_



**w. Ancover** is a new polyethylene material you can use and reuse in a variety of protective applications. It comes in standard rolls 36", 54", 84" and 10' x 100 lin. ft. for use as underslab Vaporseal, wind or dust shield, general protective cover, economy storm window, drop cloth and truck cover. You can get it in 2, 4 and 6 mil ga. in clear, colorless or black opaque form. Maker says it is resistant to water, acids, alkalis or fungus, has a perm rating of .10. Angier Corp., Framingham, Mass.



**x. Hydraulic gravel clam** moves gravel from ground to roof efficiently. It can be hooked up with any hoist, is lowered by hoist to any point above material pile. Man on ground places cylinder into position on clam. Cylinder control valve opens clam manually to gulp up a barrow-load of material at a time. When clam is full, man closes control valve which locks clam, lifts cylinder-off and filled clam is ready to be hoisted to roof. Entire power unit—cylinder, valve, etc.—remains on ground. \$885. F.O.B. Fouray Products Ltd., Racine, Wis.



**y. Medium portable air compressor** supplies sufficient air to spray paint up to 900 sq. ft. per hour, maker says. Yet its light weight, new design makes it easy to fit into the trunk of an automobile. Compactness was achieved by making air receiver and axle unit a part of the base, and by new swivel-mounted, gooseneck handle which swings over motor when transported. Unit measures 19" w., 28" l., 25" h., comes with either electric motor or gas engine. Binks Mfg. Co., Chicago 12, Ill.

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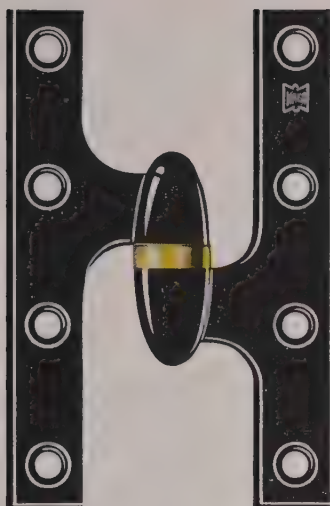
HOUSE & HOME



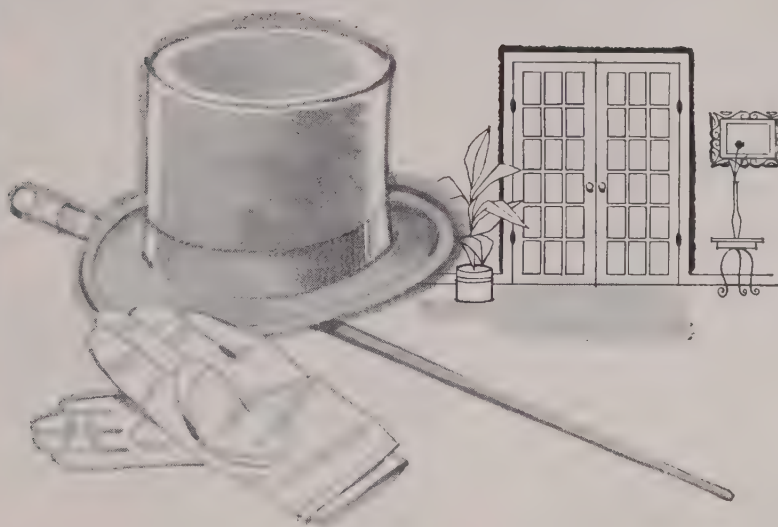
*The graceful touch that says so much . . .*

# THE HAGER *Manhattan*

## OLIVE KNUCKLE HINGES



BB-1201-M  
olive knuckle illustrated.  
Available in  
3", 5", 6" sizes.



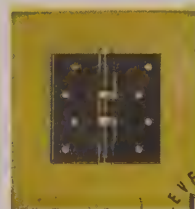
*the sophisticated high-fashioned hinge*  
*with the dramatic 1960 **BLACK 'N' BRASS LOOK!***

Quietly . . . stylishly . . . memorably . . . *Hager Manhattan Olive Knuckle Hinges* distinguish the homes, clubs, offices where taste and function are designed by the discriminating architect or builder to go glove in glove.

The practicality of this dramatic hinge by Hager . . . the hinge that swings on 100 years of experience . . . is sheathed in Hager's excitingly luxurious black *Manhattan* finish . . . accented by one elegantly simple band of brass. Here is the charming small touch which gives the medium-weight door (receiving average-frequency use) the look of distinction.

On your next job . . . and every job . . . which calls for one touch of elegance, specify *Hager Manhattan Olive Knuckle Hinges*—Symbol M—permanent testimony to your good design taste.

BB-1241-M  
*Button Tip Hager Manhattan Finish*  
now available on  
all Butt Hinge  
Classes and Sizes



C. HAGER & SONS HINGE MANUFACTURING COMPANY • ST. LOUIS 4, MISSOURI





*Don't Calk it . . .  
DRIVE it!*

*Long lengths, light weight, tapered couplings make Permaline easy to install, cut installation time by two-thirds!*

## L-M Permaline Fibre Pipe makes good sewer lines

There's no line like Permaline—the best sewer pipe on the market for everybody—the dealer, the plumber, the builder, and the home owner. Permaline bituminized fibre pipe is easy to install. Once the job is properly done, it's in to stay!

These features make Permaline pipe a good deal for everybody:

Light, tough, strong. Easy to handle, on the truck and on the job.

Tapered coupling or fitting is simply tapped onto the tapered end of the pipe, to make a watertight, root-proof connection. Installation is fast and easy—no cement, no calking.

Permaline pipe is not harmed by hot water, detergents, acids, or alkalis. Permaline outlasts other pipe where strong acids or alkalis are handled.

With Permaline pipe, there is no infiltration of flood or ground waters. Thus, sanitary systems are not overloaded.

Permaline withstands heavy weights, soil shifting, freezing, settling, better than other pipe, because of its resilience and the tight joints that don't crack and leak.

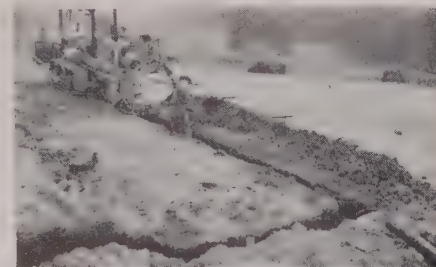
Permaline is supplied in solid pipe, and in perforated type for septic-tank beds, land drainage, and footing drains. Lengths 5, 8, and 10 feet; 2 to 8 inch diameters. Full line of couplings, fittings, adapters.



*Over half a million feet of Permaline used at Levittown, Pennsylvania, where 3-man crew installs 15 to 18 sewers a day.*



*Permaline saved 50 to 75% of house sewer installation cost at Lawrence Manor, Sunnyvale, Calif., says Jim McClenahan, McClenahan Company.*



*Perforated Permaline on a land drainage installation at Shannon Estate, near Detroit, by Superior Tank Company.*

**L-M PERMALINE**  
**BITUMINIZED FIBRE PIPE**  
for better sewers and drains



LINE MATERIAL COMPANY  
(a McGraw Electric Company Division)

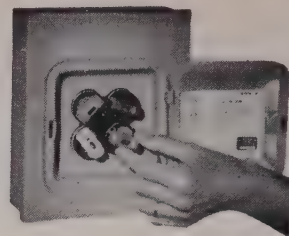
### Mail This Coupon

LINE MATERIAL CO., BSN56  
Milwaukee 1, Wisconsin HH86  
Send me free Bulletin 54078  
with complete information on  
Permaline Pipe.

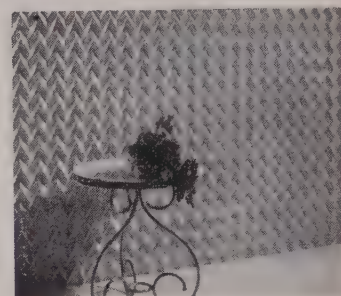
Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Type of business, please \_\_\_\_\_

New Products

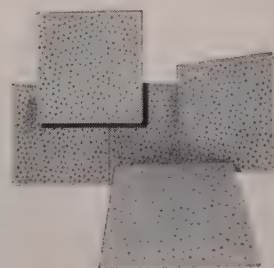
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**z. Sightmaster fuses** take the work out of locating and replacing a blown-out fuse. When they blow, they glow—since each fuse has its own tiny Neon beacon that guides you to it at once, regardless of how dark it is or how crowded the fuse box. Each fuse has six lives, so all that's needed is to turn the brightly colored knob to the next click—and the lights go on again. In 15, 20, 25, 30 amps. Any three for \$2.50, each is a different color to prevent hazardous interchanging. A. Lawrence Karp, Greenwich, Conn.



**aa. Handsome wall covering** is made of a three-dimensional vinyl material molded in a herringbone pattern. Designed by Ruth Asawa, material comes in a 1 x 3' module in an off-white color, or you can get it in any color on custom order. A black and white pattern, for instance, will appear all black from one angle, all white from another. Consider it especially for remodeling jobs where you have to deal with problem walls. Price from \$1.80 per sq. ft. Kneeder-Fauchere, San Francisco.



**bb. Random pattern acoustical tile** is a new addition to the line of Nu-Wood interior finishes. Tile bevels are coated to match decorative white of tile surface, which company says grows whiter with age. Matte texture helps to distribute reflected light and reduce glare. Tile is available in tongue and groove type for application with Nu-Wood clip, or in wide-flange style for staple application; or tile can go up with adhesive or nailing. 12" x 12" size comes in both t&g joint and wide flange joint, 12 x 24" is cross-scored. 18¢ per sq. ft. Wood Conversion Co., St. Paul, Minn.

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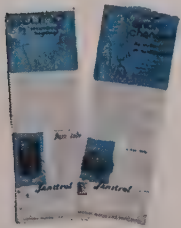


why be  
**short-  
changed**  
by 'under-par'  
air-conditioning?

...protect your profits and your prestige  
with quality JANITROL equipment!

Air conditioning helps sell homes and *keeps* them sold . . . when it's *Janitrol* air conditioning! Compact, powerful Janitrol conditioners conserve space for living . . . have a reserve of cooling power to make living a delight in your homes, even during hottest, muggiest weather. They're styled to be seen and admired, instead of hidden away. And their in-built quality makes them a source of comfort and pleasure to your buyers for all the years to come . . . does away with complaints and demands for service that batter your reputation and your profits.

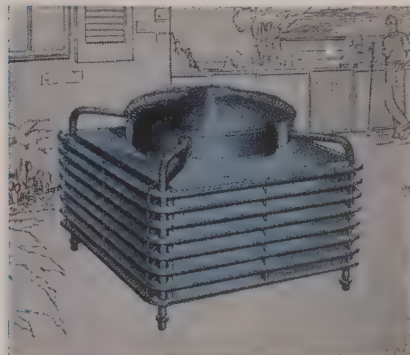
The complete Janitrol line includes models for even low-priced homes. Water or air-cooled. For summer cooling or full year 'round conditioning. All are designed for fast, easy installation to save you time and labor. Ask your Janitrol dealer for expert help in planning conditioning systems that meet all standards of National Warm Air Heating and Air Conditioning Association—yet are competitively priced.



And remember . . . month after month, your home-buying prospects are being pre-sold on Janitrol quality—*educated to demand it*—by ads like these, appearing in leading magazines, in newspapers and on TV. Your Janitrol dealer will gladly show you how to tie in for easier selling. See him soon.

**'PRIDE O' YARD'**

... a JANITROL Exclusive  
to give your homes more sell!



This is the *cooling heart* for all new Janitrol air-cooled (waterless) conditioners . . . models for year 'round conditioning or cooling only. Combines exciting new beauty with powerful cooling action. Operates with outside air temperatures to 125° F! Meets all your building and modernization needs.

...the *best* years of your business  
begin with...

**Janitrol**  
HEATING . . . COOLING



Janitrol Heating & Air Conditioning Division  
Surface Combustion Corporation, Columbus 16, Ohio  
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Complete line of gas and oil furnaces, unit heaters, conversion burners, water-cooled and air-cooled summer conditioners, combination heating-cooling conditioners.



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*more for you—  
more for your  
home buyers!*

Mutschler kitchens are complete . . . ready for installation. They are custom tailored to your specifications. Or, if you wish, Mutschler kitchen specialists will furnish the design and decorative scheme best adapted to your floor plan and home styling . . . a service built on experience that goes back to 1893. Mutschler cabinetwork is quality constructed from Northern maple, available in a variety of decorator colors and natural-grain finishes. The line includes many advanced special features that please the homemaker . . . also cabinets to accommodate any built-in appliance of any manufacturer. Send coupon below for complete specifications.



MUTSCHLER BROTHERS COMPANY  
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Please send further information and names of other builders using your kitchens.

NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
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**Showerite®** gives YOU  
THE WORLD'S BIGGEST  
**PROFITS**  
with . . .

**Glass Bath ENCLOSURES**

REPLACEMENT OR A REFUND OF MONEY  
Guaranteed by  
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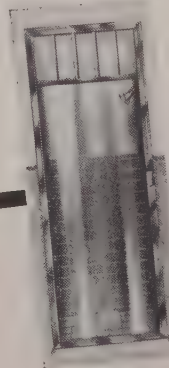
## STANDARD SHOWERITE ENCLOSURE

For 4½' or 5' Tub, Suggested Retail Price **\$69<sup>95</sup>**  
For 5½' Tub, Suggested Retail Price **\$79.95**

Sand blast designs available for Tub Enclosures in handsome Swan, Fish or Sea Horse Designs.

## NEW FEATURES AT NO EXTRA COST

- ★ 2 Extruded Aluminum Towel Bars, One Inside . . . One Out
- ★ NEW Noise-Proof Door Slide CHANNEL
- ★ NYLON Rollers—Operate Easily & Quietly on Top Track
- ★ NEW Deeper Bottom Guide Track

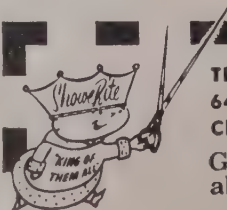


## SHOWER DOORS . . .

Completely assembled, hammered frosted glass for easy installation. Continuous piano hinge, drip moulding, with every unit. Easy-to-grip handle. For 24" to 26" openings. Suggested Retail Price **\$39<sup>95</sup>**

Model Illustrated with grill top **\$49<sup>95</sup>**  
Suggested Retail Price

Your Profits Are Greater With Showerite.  
Send for Complete Facts TODAY.



THEODORE EFRON MFG. CO.  
6434 S. Wentworth Ave.  
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Dept. HH-856

Gentlemen: Please rush me information about Showerite products.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



**NEW!**

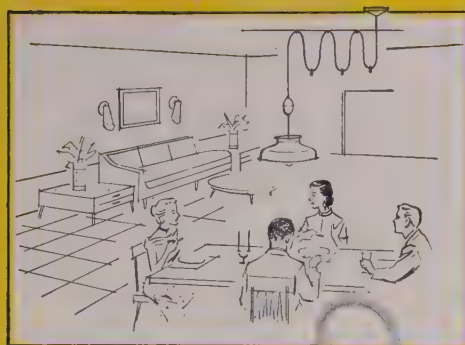
**NEW!**

**NEW!**

**progress**

## 3 All-New Lines BUILD MORE HOME SALES

### **New!** Striking Selection of Lighting Fixtures



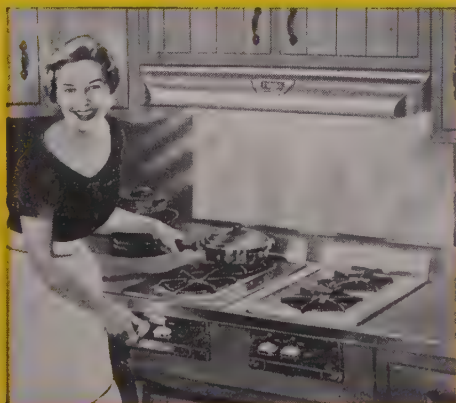
Here's your opportunity to put more salability into your homes without "upping" building costs. Out of Progress' exciting new line of lighting fixtures you may choose for any room, any type of house . . . all artistically designed to please many tastes. Golden-touched brass, beautifully designed glass . . . recessed, modern, traditional, or graceful Italian styles. It's the widest selection of indoor and outdoor lighting fixtures, styled for popular appeal . . . priced for fast turnover!



**NEW!**

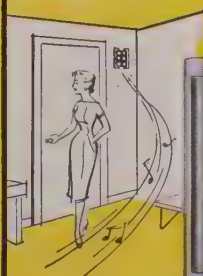
### **Power Vent Ventilating Fans and Range Hoods**

Every item in this sensational new line represents more-for-the-money value! Fine styling and top performance by PROGRESS—a name your customers recognize for quality in lighting fixtures—insure fast selling action. Why PROGRESS means better business for you!



**NEW!**

### **Beautiful Door Chimes**



Handsomely styled, they include Hi Fidelity chimes in bone white or brass, as well as recessed electric clock chimes. Also repeating chimes in wood, copper, brass and other special finishes. Feature them—for a real sales-plus!

**PROGRESS MANUFACTURING CO.**  
PHILADELPHIA 34, PA.

PROGRESS MANUFACTURING CO.  
Castor Ave. & Tulip St., Philadelphia 34, Pa.

Please send me information on these Progress lines:

- ☐ Lighting Fixtures ☐ POWER VENT Ventilating Fans and Range Hoods  
☐ Door Chimes

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_





## PUT OUR EXPERIENCE behind YOUR home AIR CONDITIONING



Many builders, through lack of personal experience with year-around air conditioning, hesitate to put it in their homes—but *not those who specify Majestic*. They know the full weight of Majestic's many years of "home comfort" experience stands firmly behind their ultra-modern 1956 units. In remodeling or in new construction, the contractor expects and gets all the benefits of Majestic's research and engineering.

### **Majestic 1956 Line IS COMPLETE**

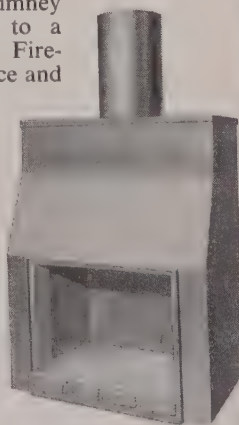
Whatever system you want—2, 3, or 5 ton self-contained water-cooled units or remote air-cooled models, in matching twin units or for add-on installations—Majestic has it in the 1956 line. For only a very few dollars, a Majestic Furnace installation can be equipped with a remote-system evaporator cabinet, ready for "the works" whenever the home owner decides on all-season air conditioning.



## **SLASH Chimney and Fireplace COSTS**

Majestic also makes the revolutionary metal Thulman Chimney that *cuts erection costs* to a minimum, and Thulman Fireplace, the complete fireplace and chimney that *needs no masonry*. Both have simulated red-brick top housings. Both are U.L.-listed for *zero clearance* installation in homes to two-stories high, with or without basement.

Call your nearest  
Majestic Dealer,  
or write today

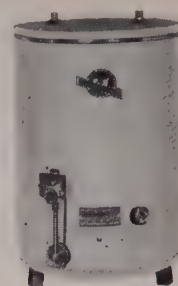


The **Majestic** Co., Inc.

416 Erie Street

Huntington, Indiana

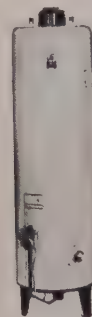
for further details check numbered coupon, p. 256



cc. Low-height gas water heater has a space-saving design that lets you install it almost anywhere. 30-gal. "Compact" stands 36½" h.; 40-gal. model is 46½" h. Width of both heaters is 23". This means you can put the units in crawl spaces, under stairs, in attics. The 30-gal. model has either Hi or Lo input. Hi input models furnish abundant hot water for large usage; Lo input permits unvented installation, ample hot water for average-size family needs. 40-gal. gives volume quantities of hot water. Handley Brown Heater Co., Jackson, Mich.



dd. Electric towel rack is heated by a 50-w. element within the tube. Unit just makes towels warm, not hot to the touch and a red signal light indicates when current is on. Bars and end brackets are solid brass, chromium-plated. "Warm-Dri" rack is about 26" long by 13" high. Its three bars can hold several towels. Price is about \$34.50, installation is extra. UL approved. From Hall-Mack Co., Los Angeles, Calif.



ee. Jetglas water heater comes in three sizes: 20, 30 and 40 gal. with input ratings of 27,000, and 30,000 Btus. "Special" has 100% controls, a magnesium anode rod, oversize access door, a plastic sleeve on thermostat tube to protect against electrolytic corrosion, and the Jetglas lining. New heater was designed to meet the needs of both the new construction market and the lower cost replacement market and the new series will supplement Jetglas Master and Standard models. Day & Night Div., Carrier Corp., Monrovia, Calif.





He's cutting clay tile installation costs  
by as much as 20% ... and so can you!

## CTA 11

The new 3M Clay Tile Adhesive lets contractors set tile so much faster and more easily, they can complete more jobs per month

Now, like the tile setter above, you can reduce clay tile installation costs up to 20% ... perhaps even more. You can put all the beauty and durability of clay tile installations in reach of more modest budgets than ever before. How? With CTA 11, the cost-cutting, new clay tile adhesive from the laboratories of 3M.

CTA 11 cuts costs because it's faster, easier. You can set clay tile directly on "dry wall" or virtually any plumb surface: plaster, concrete block, plywood or metal. And CTA 11 is pre-mixed, ready to spread like butter right out of the can. There's no bulky equipment to maintain or transport. A trowel is the only tool you need.

As a result, tile contractors gain greater profit opportunities. They need less time for each job, can set and grout on the same day, can do more jobs per month. There's less clean-up. In remodeling there's no rebuilding of walls. Rooms can be re-occupied 24 hours, instead of days, after tile is set.

What's more, a rubber base makes CTA 11 uniquely durable. It flexes to resist wall-settling cracks, bonds tile tight to the wall with a shear strength of more than a ton per tile. And water-resistant CTA 11 seals the wall against moisture.

Save hours of labor, inches of space, dollars of cost. Make your next tile job a modern, quality installation with

CTA 11 by 3M. And for similar advantages in setting ceramic floor tile, specify CTA 12. Both are available through your local tile distributor. Get all the facts on fast, dependable CTA 11 and CTA 12 now.

Fill Out and Mail the Coupon Below Today!



Minnesota Mining and Manufacturing Company  
Adhesives and Coatings Division, Department 123  
417 Piquette Avenue, Detroit 2, Michigan

Sirs:

Please mail me at once complete information on cost-cutting CTA 11 and CTA 12 Clay Tile Adhesives.

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City \_\_\_\_\_

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SHEETINGS • "3M" ABRASIVE PAPER AND CLOTH • "3M" ADHESIVES AND COATINGS • "3M" ROOFING GRANULES • "3M" CHEMICALS



for further details check numbered coupon, p. 266

## BUILDING MATERIALS

494. "How to begin a cedar shake double-coursed sidewall." Red Cedar Shingle Bureau, Dept. HH, 5510 White Bldg., Seattle, Wash. 1 sheet.

An illustrated guide for beginning a starter course for a double-coursed exterior wall with machine-grooved cedar shakes. Only extra piece of equipment needed for beginning the first or lowest course is a 6'-8'1" piece of shiplap.

495. Design Ideas. Douglas Fir Plywood Assn., Dept. HH, 1119 A St., Tacoma 2, Wash. Portfolio.

Design sheets in a big folder. You'll see the work of several leading architects commissioned by this company to show imaginative ways to use fir plywood. Diagrams, sketches, construction details.

496. Fence Folio. Western Pine Assn., Dept. HH, Yeon Bldg., Portland 4, Ore.

This fine little sheet comes up with a refreshing variety of fence styles that can't help but make most lots look better. You also get a run-down on the kinds of Western Pine woods to use, the nails and finishes best suited for construction. A check-list for builders runs through the construction rules.



497. Catalogue 1. Northern Indiana Brass Co., Dept. HH, Elkhart, Ind. 88 pp.

According to NIBCO, copper provides such clean working conditions that plumbers may as well dress on the job. 4,500 different styles and sizes of fittings are shown. There is a new line of NIBCO traps and an engineering section that serves as a working manual.

498. Perma-Line booklet. Line Material Co., Dept. HH, Milwaukee, Wis. 24 pp.

Bituminous fiber pipe for drainage, sewer and septic systems. A description of manufacturing processes, research and development, and application techniques of various pipe systems are included.

499. "Better Fastenings for the Building Trades." Independent Nail and Packing Co., Dept. HH, Bridgewater, Mass. 24 pp.

A complete book of nails, including the threaded nail whose development this company pioneered in. Descriptions of what kind of nail you need for every kind of job.

continued on p. 246

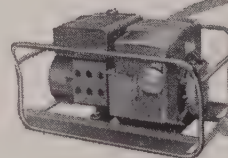
What sizes of

# ONAN Portable Electric Plants are best for your jobs?



**10 KW ONAN**  
provides power for  
**5 H. P. saw or**  
**several crews**

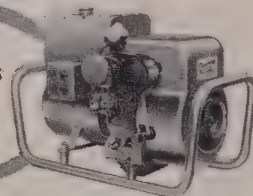
Powered by two-cylinder, air-cooled gasoline engine. Available housed and with trailer as shown. Similar model in 7½ KW capacity.



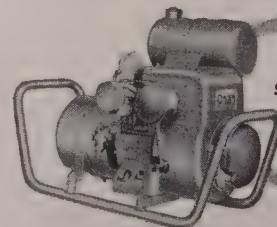
**5 KW ONAN**  
for crews on  
**3 or 4 homes**

Two-cylinder, air-cooled, gasoline engine. 4 plug-in receptacles. With carrying frame, on dolly, or with plain base. Also in 3,500 watts A.C.

**2 or 2½ KW**  
**ONAN powers**  
**electric tools**  
**for 2 crews**



One-cylinder, gasoline engine. 4 plug-in receptacles. With carrying frame, dolly-mounted or plain base. 2,500-watt unit weighs only 139 pounds.



**1 or 1½ KW**  
**supplies power**  
**for single**  
**crew**

Compact, lightweight. One-cylinder, gasoline engine. With carrying frame, rubber-tired dolly or plain base. Also 500 and 750-watt models.

Onan portable electric plants combine 4-cycle quick-starting and long life with compactness and lightweight. Completely Onan-built, with Onan short-stroke engines and Onan generators. Other models to 50,000 watts.

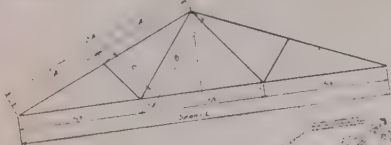
Write for portable plant folder or see your Onan distributor.



**D. W. ONAN & SONS INC.**

3206 Univ. Ave. S. E., Minneapolis 14, Minn.

## FABRICATING BENCH DESIGN



## HOW TO BUILD WOOD FRAME

**TECO**

TRUSSED RAFTERS



With these two **FREE** guides and genuine **TECO WEDGE-FIT** ring connectors —

*You can build your own*  
**TECO TRUSSED RAFTERS**  
*easily, quickly, economically,*  
*right at the job site.*

**Easy to Fabricate**—Just cut the four different pieces from common 2x4s and 2x6s, quickly and accurately on the simple fabricating bench you can build from the detail drawing that's **FREE**—

**Assemble Without a Jig**—Precision assembly of the four members, in pairs, is fast and easy with **TECO Wedge-Fit** connectors in conforming grooves cut with the special **TECO** grooving tool—

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and for added strength throughout, tie down your trusses with **TECO Trip-L-Grip** framing anchors.

Send today for the **FREE** detail drawing of the portable Fabricating Bench, and a copy of "How to Build Wood Frame **TECO** Trussed Rafters" giving detailed instructions on fabricating, assembling, and erecting these versatile roof trusses.

**TIMBER ENGINEERING COMPANY** HH-565  
1319 18th Street, N.W., Washington 6, D. C.

Please send **FREE** drawing of Fabricating Bench design and copy of "How to Build Wood Frame **TECO** Trussed Rafters".

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There is more flexibility in a Ford Tractor with a Sherman backhoe and loader than in any other piece of equipment on the construction site today. You'll use it on more different applications than anything else you own. Trenching for footings, service lines, sewers and drains—digging holes for tanks and catch basins—loading aggregates and leveling and backfilling and light stripping—carrying materials and supplies, cleaning up and distributing topsoil—and dozens of other jobs. It's an inexpensive machine you can easily afford to keep on the construction site, full time, for the many odd jobs that crop up so consistently.

The two big reasons why you see more Sherman Power Diggers than any other kind are simply these: You get more production from a Sherman and, your Ford Tractor Dealer, having sold so many,

is equipped and skilled in helping to keep your machine on the job working at peak output without costly downtime.

Now is the time to see your Ford Tractor Dealer for a demonstration of this dependable, high-production back-hoe; or write for Bulletin No. 2551.

Sherman Fork Lifts are cutting materials handling costs at the building site for hundreds of contractors and builders today.



See Your Local  
**FORD TRACTOR DEALER**  
For a Demonstration



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**BUILT-IN VENTILATING FAN MODELS...**

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**FAN CAN BE**

**INSTALLED IN MINUTES AND EVERY**



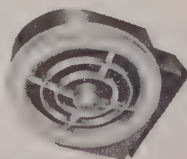
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**THRU-CEILING MODELS TODAY, TO**



**BERN'S AIR KING CORP., 3050 N. ROOSEVELL ST., CHICAGO 18, ILL.**

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500. "Drywall all-metal trim." Drywall Trim, Inc., Dept. HH, 2408 N. Farwell Ave., Milwaukee 11, Wis. 4 pp.

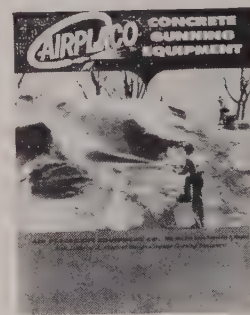
Complete line of improved all-steel corner guards and edge guards for drywall construction.

501. "Thermo-Bord" and "Careystone." The Philip Carey Mfg. Co., Dept. HH, Cincinnati 15, Ohio. 120 pp. and 84 pp.

Two fine big books. The first, a data manual about Thermo-Bord uses, technical details, test information and construction. Index is about as complete as you can get.

Careystone asbestos cement manual is equally detailed and filled with applications methods, suggestions and specifications, plus tables of quantities and weights.

#### BUILDING EQUIPMENT



502. Airplaco Concrete Gunning Equipment. Air Placement Equipment Co., Dept. HH, 1009-11 W. 24th St., Kansas City 8, Mo. 16 pp.

The new Airplaco portable concrete gunning rig, details, specifications and operating capacities of the equipment in the company's line:

503. "New Dimension Living." Airtemp Div., Chrysler Corp., Dept. HH, 1600 Webster St., Dayton 1, Ohio.

Ten brochures—each covering a specific model group—with descriptions and specifications on the major lines of modern heating units by Airtemp.

504. Calcinator automatic home disposal unit. Calcinator Corp., Dept. HH, 28th and Water Sts., Bay City, Mich.

Four sheets describe the Calcinator Imperial, the Automatic gas deluxe model, and electric deluxe model automatic "garbagemen."

505. "How many will be in your home?" Continental Electric Equipment Co., Dept. HH, Box 1055, Cincinnati 1, Ohio. 8 pp.

As the title indicates, if you're wiring for 20 or more appliances, you'll want to know more about the Circuitrol—a central home power control panel—that is said to do away with fuse box troubles since adequate provision is made for electrical needs.

506. Kelvinator's Publicity Kit. Kelvinator Div., American Motors Corp.,  
continued on p. 250



number  
for the  
number

1  
2

quality  
bath...



# Weisway

...the shower of many blessings

Weisway cabinet showers bestow many blessings on the architect and builder, as well as the home owner. Take this built-in model, just one of many models in several styles. It is ideal for new construction or remodeling, and the ultimate in economical installations of this type. There's no need to build a water-tight room, because Weisway cabinet showers themselves are independent leak-proof enclosures. The quality of all Weisway cabinet showers is unmistakable, and is proven by many years of successful operation. Whatever the home's cost, a Weisway cabinet shower for the second bath will "do it proud." Send coupon below for new illustrated catalog with specifications.

Weisway vitreous porcelain enamel receptors are completely sound deadened and constructed to withstand both use and abuse. Terrazzo receptors are also available.



**WEIS**

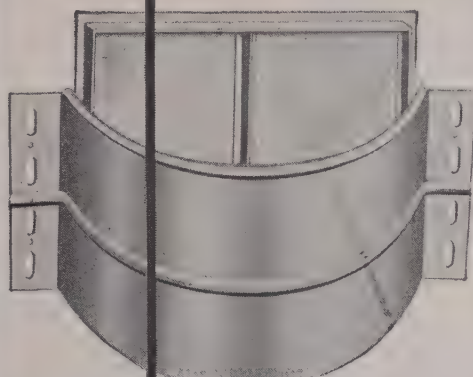
toilet compartments and  
cabinet showers  
for schools, institutions,  
industry and home

NEW ILLUSTRATED CATALOG OF CABINET SHOWERS  
Henry Weis Manufacturing Company  
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### WINDOWS

- Made from 1/8-inch steel stock
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- 16-gauge copper-bearing galvanized steel
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For over sixty years Donley has manufactured metal building products to make fine homes better.

Some other Donley Foundation Products: • area gratings • cleanout doors • coal chutes • basement columns • thresholds • foundation waterproofing • wall plate anchors • foundation ventilators • joist anchors

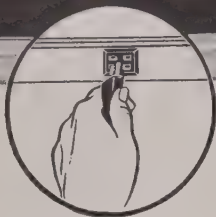
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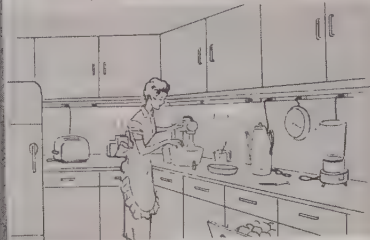


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**OUTLETS UNLIMITED**  
at fingertip reach for  
**HOUSEPOWER** convenience!

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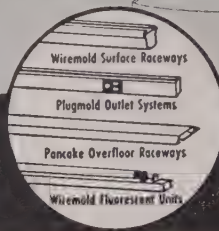
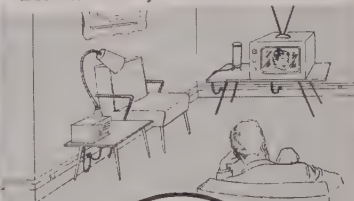


Plenty of outlets in bedroom.



More outlets and light for counters.

Blends neatly with baseboard.



**PLUGMOLD** puts outlets unlimited at your customers' fingertips, keeps your homes electrically modern and supplies plenty of outlets for all present and future electrical appliances.

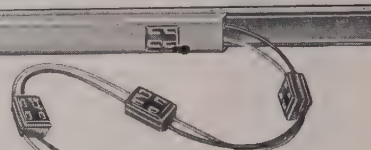
**PLUGMOLD** is safe, permanent and *unobtrusive*... no protruding receptacles... no bulky feed boxes. Painted to match the room decor, it becomes a part of the trim.

## Is installed in 3 EASY STEPS

1. Plugmold base is attached to the wall.
2. Receptacles are snapped into the cover.
3. Cover with receptacles is snapped into base.

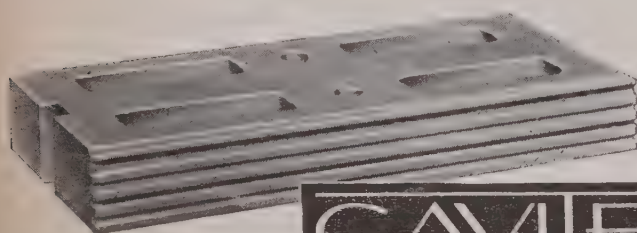
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... a screwdriver, screws and a hacksaw.



**The WIREMOLD Company**

Hartford 10, Connecticut



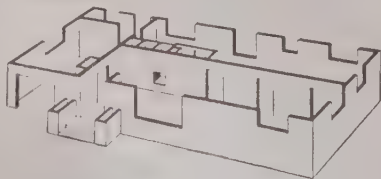
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## THE SUPREME MASONRY

Outstandingly beautiful in color, proportion and texture, Cavitex is masonry at its peak point, yet amazingly low in price. It is styled to contemporary trends, with emphasis on the horizontal. Modular in all dimensions, with laid-up sizes of 16x8x2 $\frac{2}{3}$  and 16x4x2 $\frac{2}{3}$ . Striated or plain face. Large voids for self-contained insulation values.

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CANADA: 858 Dundas Highway, Cookville, Ont.

## Interested in Manufacturing?

If so, ask for copy of factual booklet, "Opportunity, Unlimited." Tells how the manufacture of Cavitex can be a profitable community enterprise, either by itself or

as supplementary to building activities. Plants operate in franchise protected territories. Equipment available on attractive lease arrangement to responsible parties.



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**FIXED LOUVER**

for 2/12, 2 $\frac{1}{2}$ /12 or 3/12 PITCH

- One model in four sizes to 140" base
- Can be used at 2/12, 2 $\frac{1}{2}$ /12 or 3/12 pitch
- Aluminum or galvanized steel
- Ship K-D. Assembled in 7 minutes

Now — Leslie introduces a completely new idea in louver design — the unique "C" Series fixed louver which can be assembled for 2/12, 2 $\frac{1}{2}$ /12 or 3/12 pitch in a few minutes.

The "C" Series louver has the structural strength and ease of installation of conventional fixed louvers which fit only one pitch.

Shipped two louvers per carton, the "C" Series Louver is the versatile answer to a long-standing need for really low pitch louvers at minimum unit and storage cost.

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C-4A	C-4	81 $\frac{1}{2}$ " 6 $\frac{3}{4}$ "	79 $\frac{1}{2}$ " 8 $\frac{1}{4}$ "	76" 9 $\frac{1}{4}$ "	57	79	106
C-5A	C-5	101" 8 $\frac{1}{4}$ "	98" 10 $\frac{1}{4}$ "	95" 12"	106	145	194
C-6A	C-6	120 $\frac{1}{2}$ " 10"	117" 12 $\frac{1}{2}$ "	114" 14 $\frac{1}{2}$ "	171	232	309
C-7A	C-7	140" 11 $\frac{3}{4}$ "	136" 14 $\frac{1}{4}$ "	133" 16 $\frac{1}{2}$ "	252	340	450



# HOW TO CUT COSTS

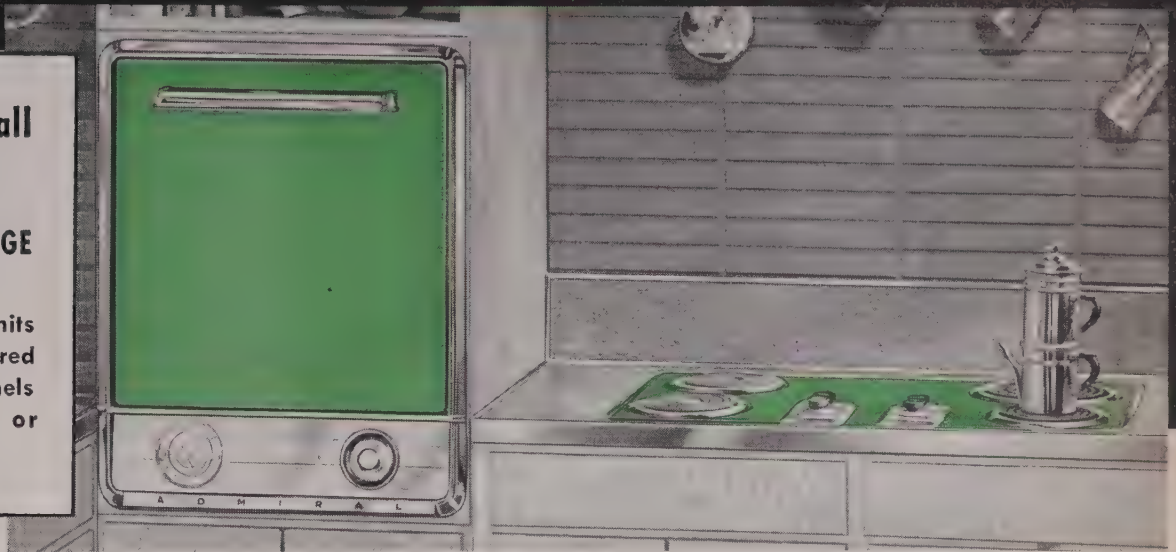
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**Admiral**

Built-In ELECTRIC RANGE

Super Speed Surface Units  
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Porcelain. Oven Door Panels  
in Colored Porcelain or  
Brushed Chrome.



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## Admiral® Appliances

ON YOUR NEXT JOB

With Admiral appliances you get more for your money. Which means you cut your costs, yet offer *more* to customers. You profit

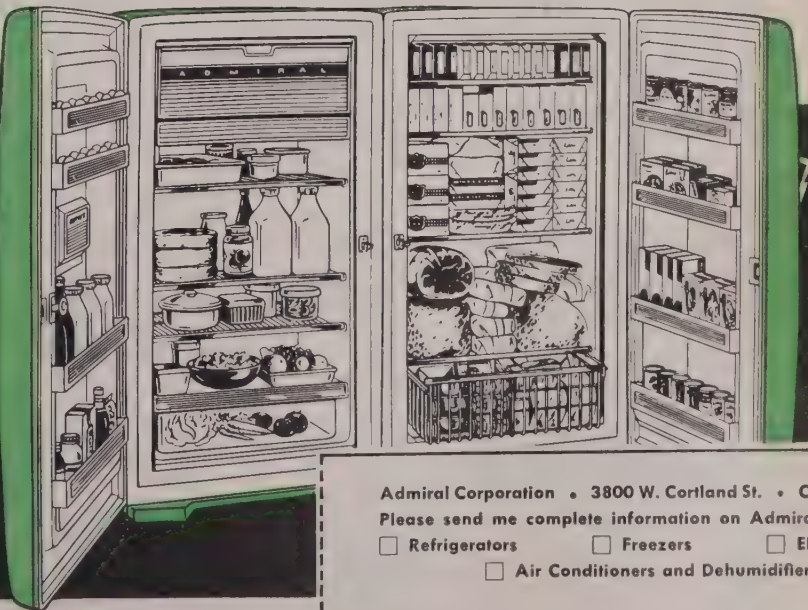
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Firm Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

No. of Units Planned \_\_\_\_\_

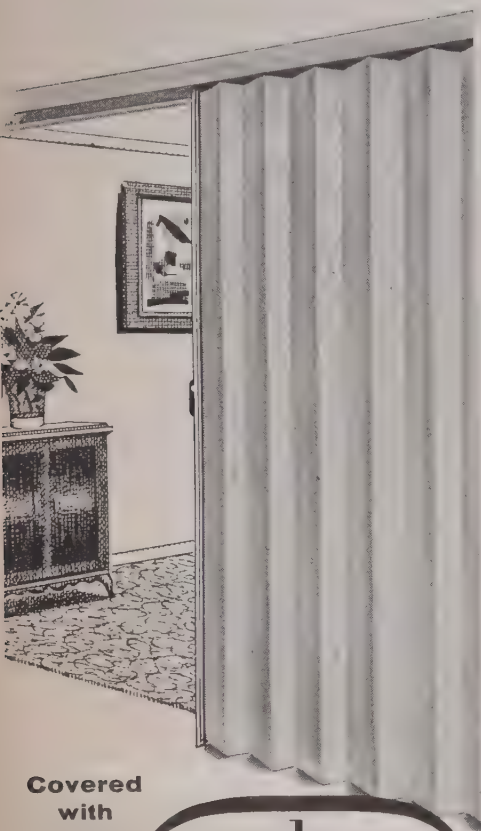


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TIME  
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Dept. HH, Detroit 32, Mich.

Photos and fillers are filed in this pocket folder to show you Kelvinator cabinets, accessories and colors, plus ideas for kitchen arrangements.

507. Electric automatic heating. Meier Electric & Machine Co., Inc., Dept. HH, Indianapolis 7, Ind. 12 pp.

This complete book features automatic wall heaters, portable heaters, bathroom heaters, radiant cable, baseboard perimeter heating, load regulators and thermostats. Photos and specifications.

508. "Advance Showing." Morgan Co., Dept. HH, 520 Oregon St., Oshkosh, Wis. 24 pp.

Here you see modern kitchens in wood, cabinets with brand new styling, new designs in hardware and a complete line of cabinet accessories.

509. Aprilaire humidifier. Research Products Corp., Dept. HH, Madison 10, Wis. 12 pp.

Sales and service guide on the operation and installation of this automatic electric humidifier. Text tells how it helps solve humidity problems.

510. Bulletin 54. The Vulcan Radiator Co., Dept. HH, 775 Capitol Ave., Hartford, 6 Conn. 12 pp.

Trimline radi-vector baseboard radiation with dimensional data, IBR ratings, pipe design chart and data on how to design a heating system.

511. "Preview." Western-Holly Appliance Co., Dept. HH, Culver City, Calif.

Portfolio of Western Holly ovens featuring the round window. You see here several styles, a lot of handsome colors, and some pretty kitchens featuring, besides the oven-broiler, a handsome cooking top.

**WINDOWS, FLOORS**

512. Watson Window. WM Products Co., Dept. HH, 5425 Blossom St., Houston 7, Texas. 4 pp.

Weather-tightness is one big feature of these windows; others are smooth operating and good design. Installation details for both masonry and wood construction are included, plus a wide range of window sizes.

513. Trimview package. Trimview Metal Products, Dept. HH, Covina, Calif.

A packet of several sheets and a brochure about Trimview aluminum sliding glass doors, screens, aluminum frame screen doors, bathroom accessories, shower doors and tub enclosures. Also louver windows and porch and patio screen enclosures.

514. "Wood Folding Doors" and "A Library of Window Ideas." 6 pp and 16 pp. Rol-screen Co., Dept. HH, Pella, Iowa.

Pella folding doors in some handsome applications and a big window book chockful of ideas, styles and treatments.

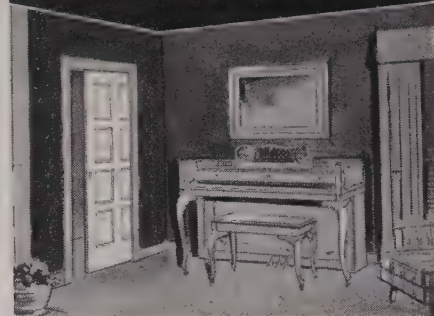
continued on p. 254

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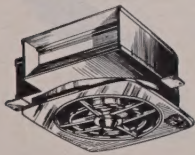
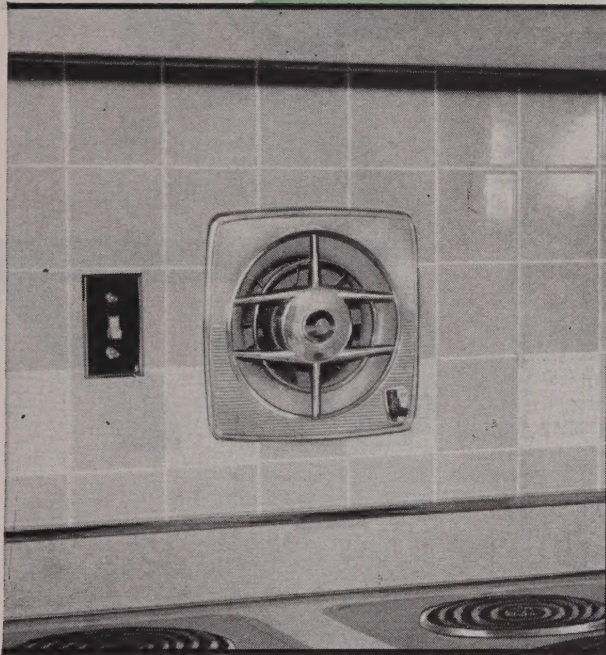
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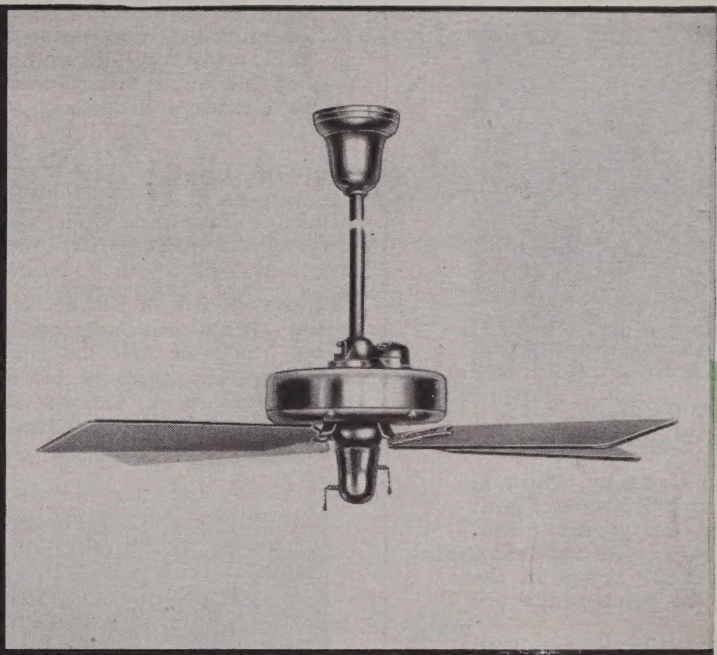
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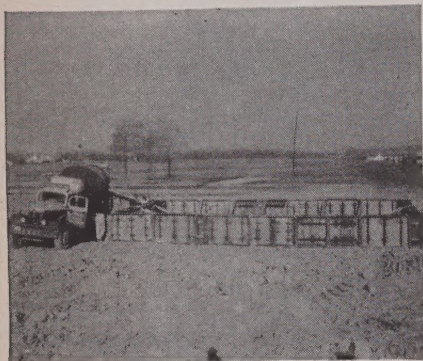
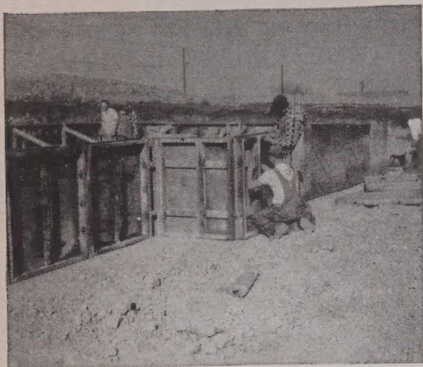
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## Symons FIELD REPORT...



### Assembly-Line Pouring with Symons Wide Panel Forms...

F&S Construction Company, Phoenix, Arizona, is converting 615 acres of farm land, northwest of Chicago, into one of Chicago's largest private suburban housing projects. 1,350 homes in the \$15,500 to \$17,900 price range are planned.

Symons Wide Panel Forms were used on the 265 homes already erected. Seven sets were used over 35 times in the assembly-line pouring. Also, approximately 6,000 square feet of Symons Forms in 2' x 6' and 2' x 8' sizes with fillers, were used to construct the sewage system for the development.

Our engineering staff is experienced with all types of forming and will furnish complete form layout and job cost sheets on your form work—at no charge or obligation. Our salesmen give advice on form erection, pouring and stripping methods.

Symons Forms may be rented with purchase option. Symons Clamp & Mfg. Co., 4277 Diversey Avenue, Dept. H-6, Chicago 39, Illinois.

Rudy Gasten is resident manager for F&S and George E. Steele is general superintendent.



Catalogs and Additional Information  
on FORMS Sent on Request

for further details check numbered coupon, p. 256

515. Maintenance Booklet. Dodge Cork Co., Inc., Dept. HH, Lancaster, Pa.

The installing contractor can study this book and give his customers tips on how best to maintain Dodge floors.

516. Gold Seal Walls and Floors. Congoleum-Nairn Inc., Dept. HH, Kearny, N. J. 156 pp.

Complete 1956 line of inlaid linoleum, Nairon plastic products, resilient tile products, Congowall, standard wall covering and Congoleum in a handsome big book of color and pattern.

517. Bulletin No. 558. Andersen Corp., Dept. HH, Bayport, Minn. 4 pp.

The importance of windows in residential air conditioning with diagrams, illustrations on how to cut heat gains; a section on the advantages of operating windows.

### LIGHTING, HOUSES

\* Home Lighting Ideas. Illuminating Engineering Society, Dept. HH, 1860 Broadway, New York 23, N. Y. Portfolio 50c.

Ten data sheets with lighting layouts for typical kitchen and bathroom arrangements. You'll see here the latest types of lighting plus fluorescent and incandescent fixtures. Book includes catalogue number of fixtures, uses, wattage, other data.



519. Brownlee Sectional Log Buildings. Brownlee Section Log Camp Buildings. Both from Universal Homes, Inc., Dept. HH, 3606 Guardian Bldg., Detroit 25, Mich.

A 16-page book on Brownlee log cabins tells about these factory fabricated structures which come in sections with doors and windows installed. All material is cut to length for easy erection. Data sheet gives information on models shown, sizes, price, wood used, extras available.

Second book is a portfolio of camp buildings, recreation, administration, central trading center, cooks' quarters, camp shelters, storage, assembly hall, lodge, etc. Data sheets give prices, extras, sizes.

520. Louvercraft booklets. Louvercraft, Dept. HH, 425 Austin Pl., Bronx 55, N.Y.

Two folders show you a variety of shutters, accordion folding doors, shuttered windows, louvered doors in standard sizes. Company also handles custom orders.

521. Stormguard handbook. W. H. Maze Co. Dept. HH, 400 Church Blvd., Peru, Ill. 16 pp.

Pocket-size book gives you a run-down of information and specifications for a new

continued on p. 256

57 HOUSES FOR '57

# 57

HOUSE & HOME's  
selection of  
houses likely to  
set the trends  
for 1957...

57 HOUSES FOR '57

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home building's  
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Multi-color Aug. 17  
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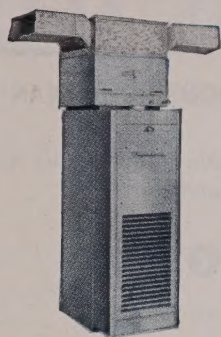
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# 4

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Lo-Boy Heating  
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Builders can now choose from four compact WILLIAMSON Wethermatic Yearound Airconditioning systems . . . the cooling equipment requires *no floor space*. Williamson Wethermatics are low cost, quickly installed and premerchandised with an all-round national consumer promotion in major shelter magazines.

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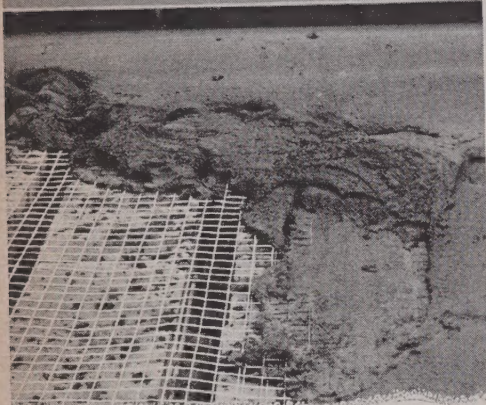
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structural concrete

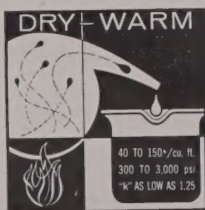


Elastizell-type light weight insulating concrete is here used as an integral pour for both beam and topping in a soffit tile concrete masonry roof. This roof is over steam curing kilns in a concrete block plant.

#### ADVANTAGES:

- less heat loss through roof, thus reduced block curing cost
- less moisture penetration, thus longer roof life
- greatly reduced initial kiln installation cost, due to far less complex roof construction
- uniform flow around steel, without vibration, for continuous bond
- reduced maintenance cost
- reduced dead load

AMONG OTHER USES OF ELASTIZELL-TYPE CONCRETE: dry, self-insulating slab-on-grade ... light weight, easy-to-handle floor fills in multi-storied construction ... light weight structural members ... insulation for underground pipe lines ... precast slabs and panels.



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**ELASTIZELL CORPORATION OF AMERICA**  
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'PHONE 1080

line of rust-resistant Stormguard nails. It also tells how to select the right type and quantity of threaded or plain shank nails for exterior applications.

522. AIA File No. 25-B-21, 25-B-29. Maas & Waldstein Co., Dept. HH, Newark 4, N.Y. 4 pp.

Plextone bulletin describes the properties of this color-flecked, textured enamel. Using it, you can spray a surface with two or more colors simultaneously in a single spray coat, since the colors exist separately within the Plextone finish.

523. Painting Acoustical Surfaces. Luminall Paints Div., Nat'l. Chemical & Mfg.

Co., Dept. HH, 3617 S. May St., Chicago 9, Ill. 4 pp.

Complete instructions on mixing paint, brush and spray applications, etc. A list of Luminall pastel colors and their light reflection factors.

524. How to install ceramic wall and floor tile. Midcontinent Adhesive Co., Dept. HH, 70 Sunshine Drive, Grove City, Ohio. Folder.

Roltite ceramic tile adhesive is the hero of this little essay on tile installation. It has excellent adhesion, is resistant to water and heat, etc. Installation instructions are thorough.

### PRODUCTS AND PUBLICATIONS COUPON

For more information on new products and publications in this August issue check key numbers below and mail to:

## House & Home

9 Rockefeller Plaza, New York 20, N.Y.

#### NEW PRODUCTS

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| e.  | Frigidaire wall oven                  | <input type="checkbox"/> |
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| h.  | Dodge Drama tile                      | <input type="checkbox"/> |
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| j.  | Cobaire gas air conditioner           | <input type="checkbox"/> |
| k.  | Lewyt wall air conditioner            | <input type="checkbox"/> |
| l.  | LT cork covering                      | <input type="checkbox"/> |
| m.  | Meadows Durajoint                     | <input type="checkbox"/> |
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| o.  | Delta faucet                          | <input type="checkbox"/> |
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| x.  | Fouray hydraulic gravel clam          | <input type="checkbox"/> |
| y.  | Binks medium portable air compressor  | <input type="checkbox"/> |
| z.  | Karp Sightmaster fuses                | <input type="checkbox"/> |
| aa. | Kneidler-Fauchere vinyl wall covering | <input type="checkbox"/> |
| bb. | Wood Conversion acoustical tile       | <input type="checkbox"/> |
| cc. | Handley Brown water heater            | <input type="checkbox"/> |
| dd. | Hall-Mack electric towel rack         | <input type="checkbox"/> |
| ee. | Jetglas heater                        | <input type="checkbox"/> |

#### TECHNICAL PUBLICATIONS

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| 494. | Red Cedar instruction sheet      | <input type="checkbox"/> |
| 495. | Douglas Fir Design Ideas         | <input type="checkbox"/> |
| 496. | Western Pine Fence Folio         | <input type="checkbox"/> |
| 497. | NIBCO catalogue 1                | <input type="checkbox"/> |
| 498. | Perma-Line booklet               | <input type="checkbox"/> |
| 499. | Independent Nail book            | <input type="checkbox"/> |
| 500. | Drywall Trim book                | <input type="checkbox"/> |
| 501. | Carey Thermo-Bord and Careystone | <input type="checkbox"/> |
| 502. | Airplaco equipment book          | <input type="checkbox"/> |
| 503. | Airtemp brochures                | <input type="checkbox"/> |
| 504. | Calcinator home disposal unit    | <input type="checkbox"/> |
| 505. | Continental Electric catalogue   | <input type="checkbox"/> |
| 506. | Kelvinator publicity kit         | <input type="checkbox"/> |
| 507. | Meier heating booklet            | <input type="checkbox"/> |
| 508. | Morgan Co. catalogue             | <input type="checkbox"/> |
| 509. | Aprilaire guide                  | <input type="checkbox"/> |
| 510. | Vulcan Radiator bulletin 54      | <input type="checkbox"/> |
| 511. | Western-Holly Preview book       | <input type="checkbox"/> |
| 512. | Watson window brochure           | <input type="checkbox"/> |
| 513. | Trimview package                 | <input type="checkbox"/> |
| 514. | Rol-screen books                 | <input type="checkbox"/> |
| 515. | Dodge maintenance booklet        | <input type="checkbox"/> |
| 516. | Congoleum-Nairn catalogue        | <input type="checkbox"/> |
| 517. | Andersen Corp. bulletin 558      | <input type="checkbox"/> |
| 519. | Brownlee booklets                | <input type="checkbox"/> |
| 520. | Louvercraft booklets             | <input type="checkbox"/> |
| 521. | Stormguard handbook              | <input type="checkbox"/> |
| 522. | Maas & Waldstein bulletins       | <input type="checkbox"/> |
| 523. | Luminall Paints brochure         | <input type="checkbox"/> |
| 524. | Midcontinent Adhesive folder     | <input type="checkbox"/> |

\* For information about unlisted Technical Publications see below.

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